



by **Schneider** Electric

# O P E R A T I O N

## DVR5100 Series Hybrid Video Recorder



**Remote Client**

**C1697M-B (11/08)**



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# Welcome

The DVR5100 remote client software provides access to all DVR5100 Series hybrid video recorder operation and configuration features in one unified, user-friendly interface. Up to three DVR5100 remote client applications can access one DVR5100 server simultaneously. Each DVR5100 remote client connection sets its own bandwidth throttle, up to the bandwidth limit set at the server. Thus, users with a higher available bandwidth are not impacted by users with a lower available bandwidth. Designed to deliver optimum security for internet connections, the DVR5100 remote client leverages a built-in virtual private network (VPN) server for connections made across a public network connection. The interface uses drag-and-drop operations, shortcut menus, and ToolTips to enable the most direct, intuitive interactions. Sound, graphics, color, and on-screen messages provide helpful, ongoing feedback about user activity and system status. You can view live video and audio, control cameras, record, search, play back, and export video. The DVR5100 remote client also allows the admin-level user to perform administrative functions, such as configuring devices, managing user accounts, and creating recording schedules. Permission to access these functions and all other system services can be configured to a fine level of detail. You see only those devices and features to which you have been granted permission.

The DVR5100 remote client offers a powerful scripting interface. With scripts, you can easily automate many system functions in almost any combination. Two search mechanisms make it easy to search for recorded footage. The Quick Search provides an efficient interface for searches based on camera, date, and time. The Enhanced Search allows searches based on motion, alarm or event, and across multiple cameras, simultaneously. System logs can also be searched, printed, and exported.

The DVR5100 remote client provides additional features that allow you to perform functions not available on the DVR5100. Table A summarizes these various features.

**Table A. Remote Client Feature Comparison**

Function	DVR5100 Remote Client	DVR5100
Operation	Operate the DVR5100 remotely from a PC.	Use the supplied USB PC keyboard and mouse or the front panel control pad.
Configuration	Configure the DVR5100 remotely.	Use local controls to configure most of the DVR5100 features. <b>NOTE:</b> Time, date, and network settings can only be configured with the DVR5100.
Scripts	Create, modify, and run scripts.	Run scripts. <b>NOTE:</b> Scripts cannot be created or modified with the DVR5100.
Relays	Create, modify, and run relays.	Create, modify, and run relays. <b>NOTE:</b> Relays cannot be created or modified with the DVR5100.
Synchronous Mode	Play back four time-synchronized clips concurrently.	No local access to the synchronous mode.
System Logs	View system logs.	View system logs.
Alarm Manager	View active alarms, acknowledge or snooze alarms, enter free-form text associated with alarms.	View, acknowledge, or snooze alarms.
Recording Schedules	Modify existing schedule times and create new custom schedules.	Modify existing schedule times and create new custom schedules.
Roles	Add and modify users and roles.	Add and modify users. <b>NOTE:</b> Roles cannot be added or modified with the DVR5100.

In addition to this operation manual, the DVR5100 remote client includes a HTML Help Viewer, which is accessible from the interface Help menu. The viewer allows you to locate the necessary topics without referring to a printed manual.

# Installing the Remote Client

## MINIMUM SYSTEM REQUIREMENTS

**NOTE:** Review the minimum PC requirements below before you install the DVR5100 remote client. Viewing up to 4SIF, 30/25 (National Television System Committee [NTSC]/Phase Alternating Line [PAL]) frames per second (fps) video on a standard PC places significant demands on the processing power of the PC. The DVR5100 remote client installation package checks critical aspects of the PC hardware to ensure that it is capable of supporting the processing load. Installation is halted if the PC hardware does not meet these requirements.

- **Processor:** Intel® Pentium® IV with 2.4 GHz, or Intel Core™ 2 Duo processor with 1.66 GHz minimum processor speed
- **Memory:** 512 MB of RAM
- **Video:** AGP VGA card with a minimum of 128 MB of video RAM, 1280 x 1024 display resolution, 32-bit color, and DirectX® 8.1 or later hardware acceleration, with support for monitors with 1280 x 1024 resolution
- **Disk space:** 1 GB of free disk space for the full application, and additional space to store video
- **Monitor:** VGA or XGA with 1280 x 1024 resolution, 32-bit color
- **Operating system:** Microsoft® Windows® XP Professional Service Pack 2 (SP2) only

## INSTALLING THE REMOTE CLIENT APPLICATION

1. Close all programs, including any antivirus software.
2. Insert the DVR5100 Series Resource disc into the CD-ROM drive of your PC, and then wait for the dialog box to appear (refer to Figure 1).



**Figure 1.** Resources Disc Dialog Box

3. Click Remote Client Setup. The InstallShield Wizard dialog box appears. Follow the on-screen prompts to install the DVR5100 remote client application.
4. Once installed, the InstallShield Wizard Complete dialog box appears.
5. Click Finish.

# Getting Started

The DVR5100 remote client uses a secure VPN connection to connect the remote PC to the DVR5100 server. To continue, you must have the DVR5100 network IP address and remote access key. You will find both on the DVR5100 Setup > System > Network screen.

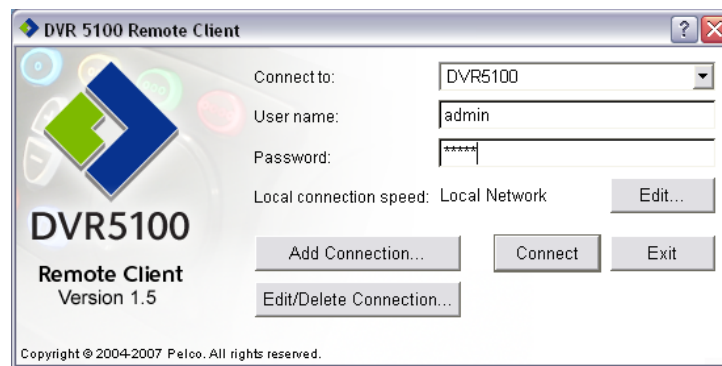
## SETTING UP SERVER CONNECTIONS

The DVR5100 Remote Client log-in dialog box allows you to administer DVR5100 network connections as follows:

- Add a new connection
- Edit or delete an existing connection
- Set up advanced security for a connection

## CREATING A NEW CONNECTION

1. Double-click the DVR5100 icon on your PC's desktop. The dialog box opens (refer to Figure 2).



**Figure 2.** Logon

2. Click Add Connection. The Add/Edit Connection Authentication dialog box appears (refer to Figure 3).

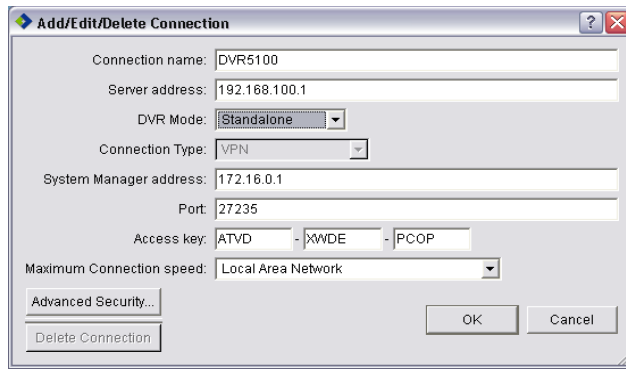


**Figure 3.** Password Authentication Dialog Box

3. Enter your password, and then click OK. The Add/Edit/Delete Connection dialog box appears (refer to Figure 4 on page 13). Adding or editing connection information requires a password for authentication. The default password is **admin**.

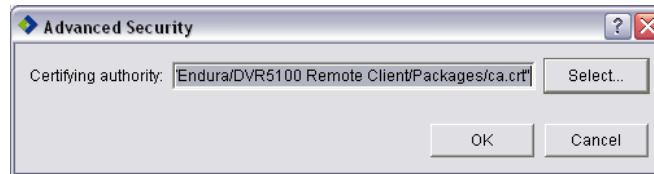
**NOTE:** As a security precaution, Pelco recommends that you change the default password.





**Figure 4. Dialog Box**

4. In the "Connection name" box, enter a name for the DVR5100 server. By default, the server site name is DVR5100.
5. In the "Server address" box, enter the IP address of the DVR5100 server.
6. Select the DVR Mode: Standalone is the default setting.
7. Select a Connection Type: VPN is the default setting.
8. (Optional) Use one of the following options:
  - If the server and DVR5100 remote client are connected directly, or in a LAN configuration, and a router is not used, you can accept the default Transmission Control Protocol (TCP) port setting, which is used to implement the VPN connection. By default, the port setting is 27235.
  - If the DVR5100 server and DVR5100 Remote Client are connected behind a router, you must enter a port number that will allow the remote client to establish a VPN connection with the unit.. Refer to the DVR5100 Network Design Guide (C3640M) for additional details.
9. In the "Access key" box, enter the DVR5100 server access key (found in the DVR5100 General System setup screen).
10. In the "Maximum Connection speed" box, select a connection speed appropriate for your application: 128 Kbps, 256 Kbps, 384 Kbps, 512 Kbps, 768 Kbps, T1, or Local Area Network. Ensure this bandwidth throttle is less than the bandwidth limit set at the server.
11. (Optional) Currently, only the default ca.crt certificate is available. To select a different certificate, click Advanced Security to open the dialog box (refer to Figure 5).



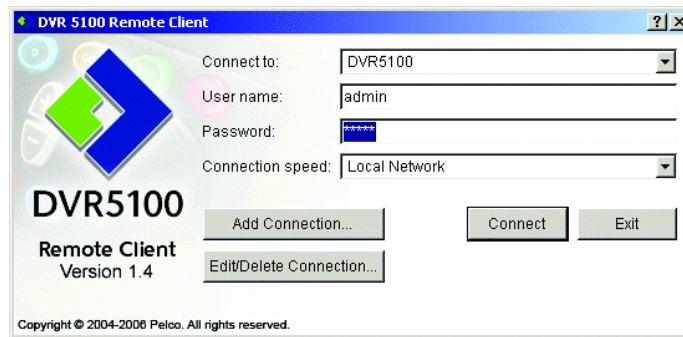
**Figure 5. Advanced Security Dialog Box**

12. Click the Select button for the "Certifying authority." The DVR5100 remote client dialog box opens.
13. Navigate to a location where the certificate is located, and then click Open. The certificate is updated in the Advanced Security dialog box.
14. Click OK.
15. In the Edit/Delete Connection dialog box, click OK. The dialog box closes if all required information is entered or displays an error dialog box, prompting you to enter any additional information.
16. Click OK.

## LOGGING ON

To log on to the DVR5100 remote client:

1. Double-click the DVR5100 remote client icon on your PC's desktop to start the application. The DVR5100 remote client logon screen appears (refer to Figure 6).



**Figure 6.** Remote Client Logon

2. Enter your password. Refer to Table B for DVR5100 default user ID names and passwords.

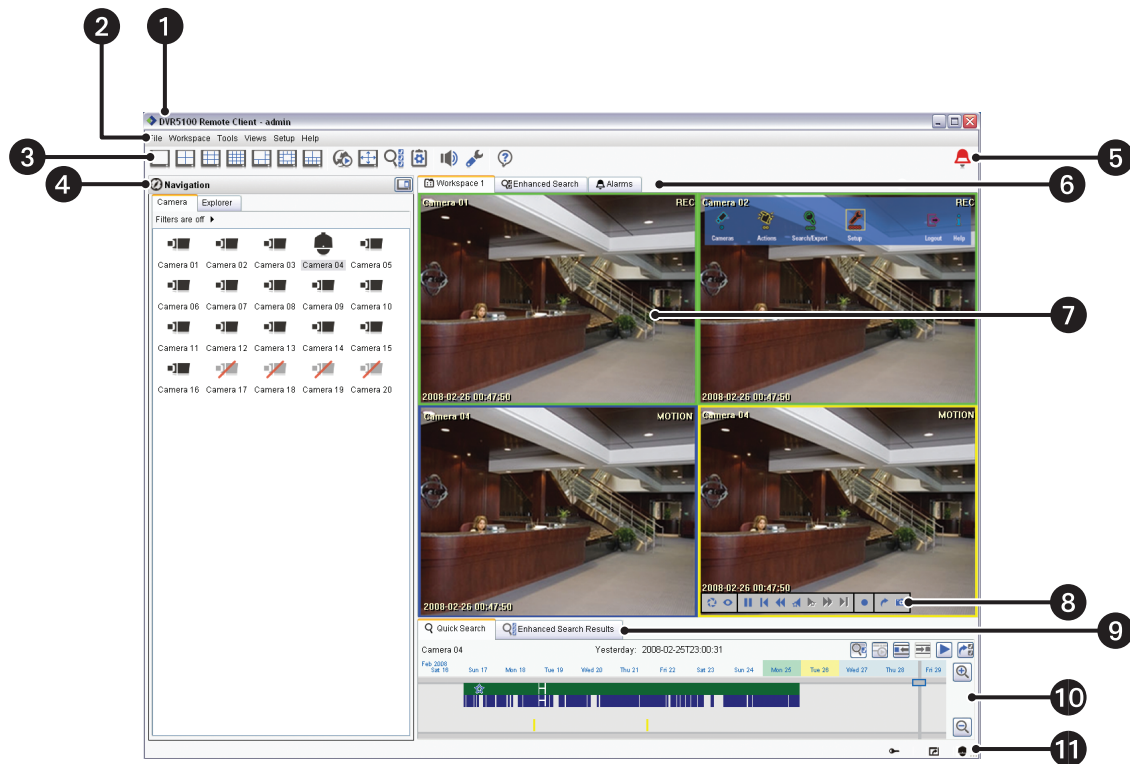
**Table B.** Default User Names and Passwords

User	Password
admin	admin or 23646
manager	manager or 6262437
operator	operator or 67372867
guest	guest or 48378

If a second logon prompt appears after selecting Connect, the DVR5100 remote client failed to find the specified DVR5100. Refer to Troubleshooting in the DVR5100 Operation manual (C1696M) for possible causes and further instructions.

# Main Application Window Overview

The DVR5100 Remote Client main application window provides access to daily operational functions. The application window is organized into a navigation panel and a viewing panel. The main window is further organized by tabs that display additional interactive areas.




**Figure 7. Remote Client Main Application Window**

The DVR5100 Remote Client main application window contains the following features:

- 1 Title Bar:** The DVR5100 name appears here, along with the currently logged on user ID name.
- 2 Menu Bar:** Use drop-down menus on the menu bar to access application features. Drop-down menus are available for File, Workspace, Tools, Views, Setup, and Help.
- 3 Toolbar:** Click buttons on this toolbar to access the application's screens and workspace. A button with a lighter background color and a gray border indicates a currently active feature.

	1 x 1 layout		1 x 12 layout		Display System Log
	2 x 2 layout		2 x 8 layout		Video Volume Control
	3 x 3 layout		Synchronous Playback		Setup
	4 x 4 layout		Extended View		Help
	1 x 5 layout		Enhanced Search		Alarm Indicators

- 4 Navigation:** This panel displays all the cameras on the network. Click and drag a camera to a video pane to view video. Apply group or location filters in the Camera or Explorer view. Rearrange the list by camera name, number, group, or location in Explorer view. The navigation panel can be docked on the right or left to suit user preferences. To move the navigation panel, click or .
- 5 Alarm Indicators:** As alarms are received, a color-coded alarm indicator appears in the toolbar. Each alarm indicator represents a different type of alarm that Endura® supports. For example, a green alarm indicator represents normal alarms. Yellow indicates minor alarms, orange indicates major alarms, and red indicates critical alarms. A flashing indicator means that an alarm has been received but not acknowledged.

- 6 **View:** This panel displays information selected by the following tabs:
- **Workspace:** The Workspace tab displays a group of video panes showing the cameras you have selected. Changes to the cameras are saved automatically. Thus, you do not need to reselect the same cameras each time you log on. To view video only and hide all controls, select Extended View . To exit extended view and return to the workspace, select "Esc", right-click a video pane, and then select Exit Extended View
  - **Enhanced Search:** The Enhanced Search tab displays the Enhanced Search screen where you can configure advanced search options and initiate the enhanced search process.
  - **Alarms:** The Alarms tab displays the Alarm Manager screen, which displays a list of all active alarms (alarms from physical events, motion events, and device errors reported by the system). An icon indicates how the user responded to each alarm (by clearing, snoozing, or acknowledging the alarm).
- 7 **Video Pane:** A bright green border indicates the currently selected video pane. Bright yellow indicates recorded video. Bright red indicates that manual recording is in progress. If audio is available, it will stream along with the live or recorded video. Right-click the video pane to see the services (such as patterns and presets) the camera supports.
- 8 **Video Controls:** The video controls appear in the lower-left corner of a video pane when you move your mouse pointer into a pane in which video is streaming (either live or played back). Rest your mouse above each button to learn its function.
- 9 **Search Results Tab:** These tabs allow you to search for video from a single camera on the Quick Search tab or to view broader search results on the Enhanced Search Results tab. Each tab offers playback and export options. for information about the Quick Search or Enhanced Search functions, refer to *Searching for Video* on page 41
- 10 **Quick Search Time Line:** This time line displays any video that has been recorded in the past 24 hours for the currently selected camera. As you select a different video pane, the display is updated to reflect the available recorded video for the currently selected camera.
- 11 **Status Bar:** Icons on this bar indicate available network services, the security status for the system, and the currently active interface feature.

# REMOTE CLIENT CONTROLS AND SHORTCUTS

Before you start using the system, review these topics to help you understand tools, techniques, and how to navigate in the application screen.

## TOOLTIPS

ToolTips help you learn the name and function of each button. Place your mouse pointer above any button in the interface and a ToolTip appears.

## SHORTCUT MENUS

Some functions in the DVR5100 remote client are available only through shortcut menus. To access the shortcut menus, right-click in the navigational, contents, or workspace tab for that location. Submenus appear for items containing an arrow indicator.

## Keyboard Shortcuts

Throughout the interface, there are keyboard shortcuts to access frequently used functions quickly without using a mouse or navigating through menus (refer to Table C). To use a keyboard shortcut, hold down the appropriate function key(s), while pressing the shortcut key.

**Table C.** Remote Client Keyboard Shortcuts

Shortcut	Operation
Ctrl+1	Single (1 x 1) layout
Ctrl+2	2 x 2 layout
Ctrl+3	3 x 3 layout
Ctrl+4	4 x 4 layout
Ctrl+5	1 + 5 layout
Ctrl+6	1 + 12 layout
Ctrl+7	2 + 8 layout
Ctrl+E	Switch to Extended View
Ctrl+L	Display the System Log screen
Ctrl+Alt+A	Display Alarm Manager screen
Ctrl+Alt+E	Display Export Manager
Ctrl+Alt+L	Display Add Entry to System Log
Ctrl+Alt+M	Display "Modify the current workspace"
Ctrl+Alt+R	Display Select/Activate Relay
Ctrl+Alt+S	Display Select/Activate Script
Ctrl+Alt+V	Display Audio Volume
Ctrl+Shift+E	Display Enhanced Search workspace
Ctrl+Shift+S	Display Setup screen
R	Start recording
F1	Show Help

# Operating the Remote Client

## MONITORING LIVE VIDEO AND AUDIO

### SELECTING VIDEO TO DISPLAY

You can view cameras in either Camera or Explorer view (refer to Figure 8). You can also create logical groups from available cameras to navigate efficiently through the camera list. A red slash across a camera icon displayed in the video pane indicates it is not currently available for display.

1. Select the desired camera. To view additional cameras, perform one of the following options:
  - Press the Ctrl key to select additional cameras individually.
  - Press and hold the shift key, along with the left mouse button, to select a desired range of cameras.
2. Once you make a selection, drag the camera(s) to the selected view pane (refer to Figure 8). If more than one camera is selected, the cameras automatically populate the available video panes.

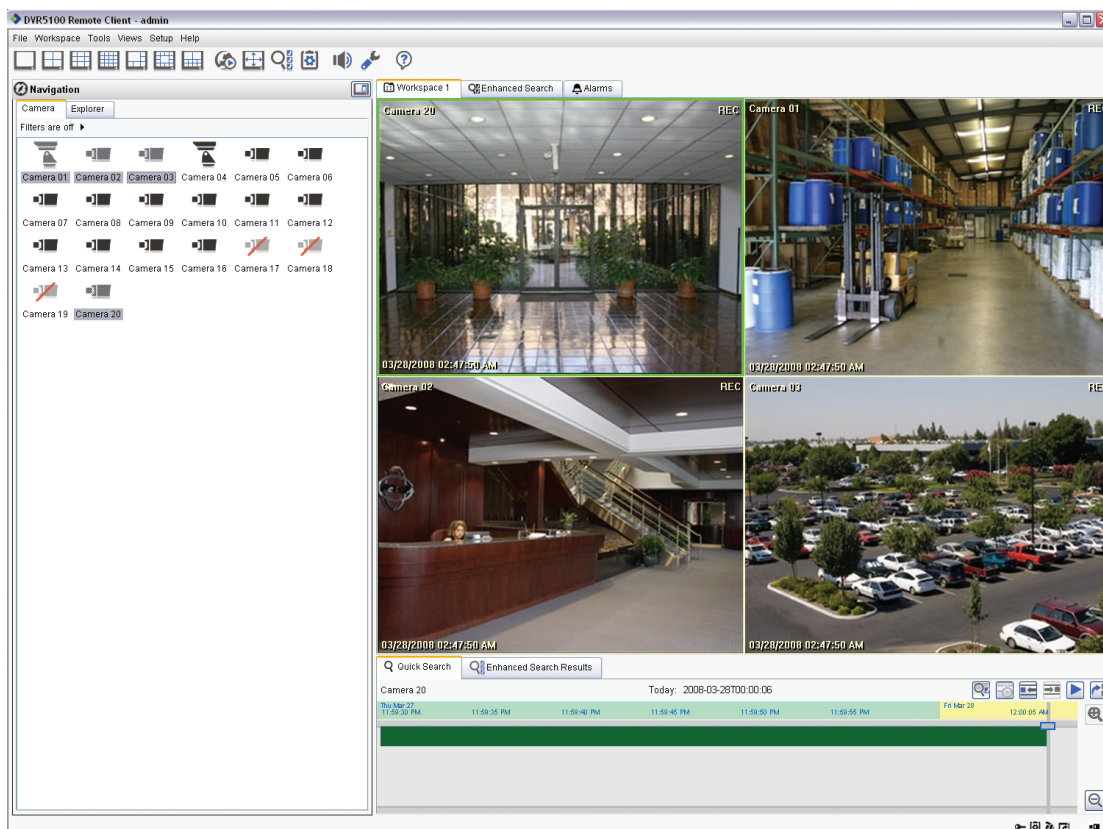


Figure 8. Selecting a Camera

3. To call up a camera by its number, right-click in the video pane, and then click "Select Camera Number..." from the Shortcut menu. The Select Camera dialog box opens (refer to Figure 9).

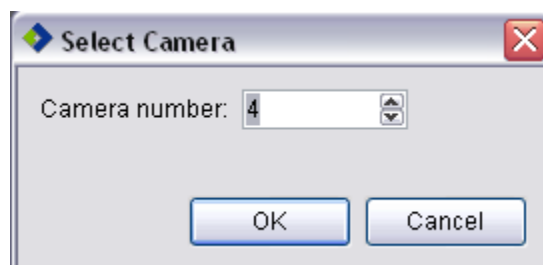
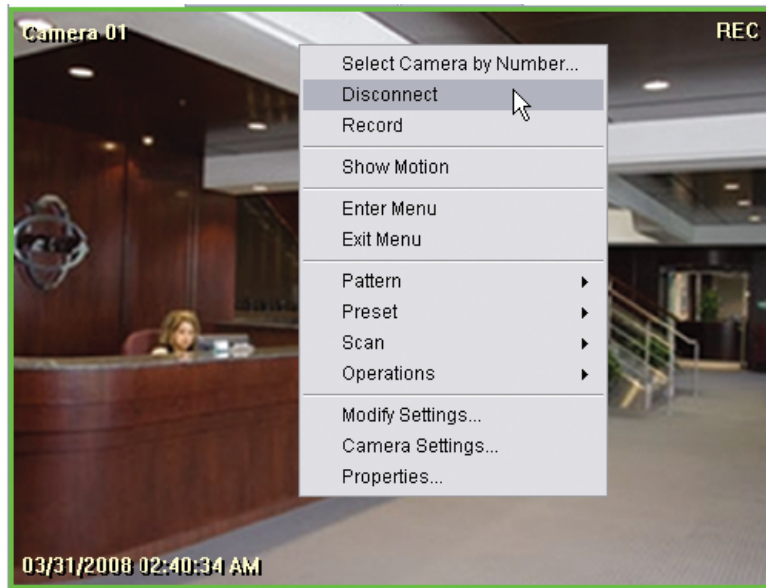


Figure 9. Select Camera Dialog Box

4. Select a camera number from the "Camera number" box.
5. Click OK to select the camera, or click Cancel to exit without selecting the camera number.

## DISCONNECTING CAMERAS

To stop displaying video from a particular camera, right-click in the video pane, and then select Disconnect from the shortcut menu (refer to Figure 10). The video disappears from the video pane, and the audio stream (if any) is disconnected. Disconnecting a camera stops the streaming across the network and can save valuable network bandwidth.



**Figure 10.** Disconnecting Video

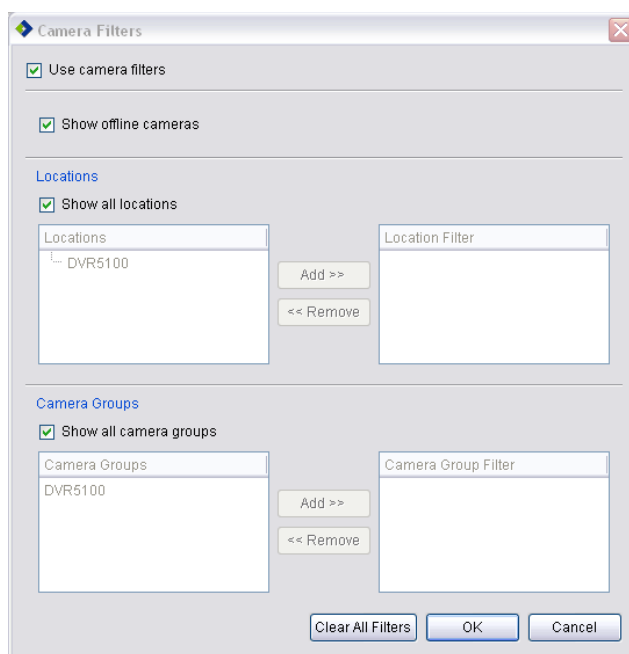
## FILTERING THE CAMERA VIEW

You may want to limit the number of cameras displayed in the Navigation panel. Use filters to restrict the cameras by location or by camera group. Configure the location and camera group associations through the Devices tab in the Setup screen.

### Using Filters to Limit the Camera List

To set up a filter:

1. In the Camera view of the Navigation panel, click the right arrow ► beside "Filters are off." Or, in Explorer view, right-click the panel and select Modify Filters from the Shortcut menu. The Camera Filters screen appears (refer to Figure 11 on page 20).



**Figure 11. Camera Filters Screen**

2. Select the “Use camera filters” check box to activate filtering.
3. Clear the “Show offline cameras” check box if you wish to cancel this option and show only those cameras that are currently connected.
4. Select location filters as follows:
  - a. Clear the “Show all locations” check box to choose cameras from particular locations.
  - b. Click plus (+) to expose lower levels of the hierarchy; click minus (–) to hide lower levels.
  - c. Click the location from which you would like to see cameras, and then click Add >>.
5. Select Camera Groups filters as follows:
  - a. Clear the “Show all camera groups” check box to choose particular camera groups.
  - b. Click the camera group for which you would like to see cameras, and then click Add >>.
  - c. When you have finished adding camera groups, click OK to save the changes or click Cancel to cancel the changes.

## Removing Camera Locations and Group Filters

To remove a filter:

1. In the Camera view of the Navigation screen, click the right arrow ► beside “Filters are on.” Or in Explorer view, right-click the panel remove comma, and select Modify Filters. The Camera Filters screen appears.
2. Click Clear All Filters.
3. To turn off the camera filters, select the “Use camera filters” check box to clear it and deactivate filtering.

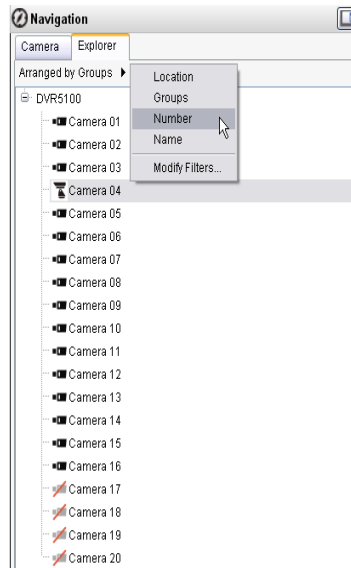
**NOTE:** Turning off the filters does not remove them from the system; the filters are still available. To activate the filters again, select the “Use camera filters” check box.



## ARRANGING CAMERAS IN THE EXPLORER VIEW

You can rearrange the cameras displayed in the Explorer view by location, camera groups, camera number, or camera name.

1. Click the “Arranged by (sorting option) ▶” menu at the top of the screen, or right-click in the white space below the list of cameras.
2. Click Location, Groups, Number, or Name. Figure 12 shows cameras sorted by camera number.



**Figure 12.** Navigation: Explorer View, Sorted by Camera Number

If you select “Arranged by Location” and no locations have been defined, the complete list of cameras appears under “Unknown location.”

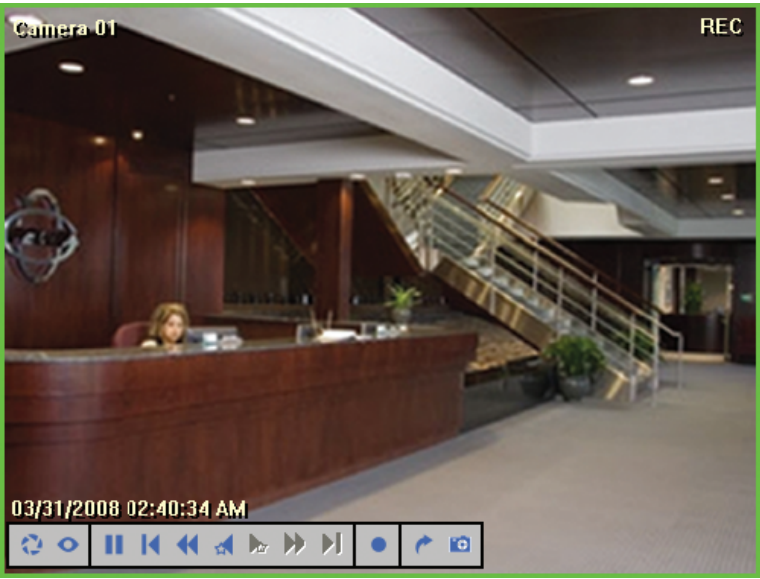
When cameras are arranged by groups, only those cameras that have been assigned to a group appear in the Explorer panel. If no camera groups are defined, an error message appears when you select the “Arranged by Groups” option.

If no numbers are assigned and you select “Arranged by Number,” the complete list of cameras appears, preceded by 0 (zero).

**NOTE:** Location and camera filters set in Camera view also apply in Explorer view. To adjust these filters, click Modify Filters in the “Arranged by” Shortcut menu. The Camera Filters screen appears.

# Video Controls

When viewing video in a single screen or a 2 x 2 layout, place your mouse pointer in a connected video pane; a set of controls appears at the bottom of the video pane (refer to Figure 13). To hide the video controls, move the mouse pointer outside of the video pane.



**Figure 13.** Live Video Controls







The video controls allow you to adjust the camera’s iris and focus, control the recorded video playback activate manual recording, and export video clips and snapshots (refer to Table D). The fast-forward controls are unavailable when viewing live video. However, the rewind controls are still available, which provide instant playback of events without the need to conduct a separate search.

The set of video controls is slightly different when playing back recorded video that is found through a search. For more information, refer to *Playing Back Video* on page 47. Video controls are tied to user permissions. If you do not see a particular video control, you may not have permission to use that video control. Contact your system administrator to request permission changes.


**Table D.** Video Controls (Sheet 1 of 2)

Icon	Description
	Iris adjustment
	Focus adjustment
	Play/Pause
	Frame-by-frame reverse
	Fast reverse; repeatedly clicking the button increases the fast reverse speed (normal, 4X, 15X, and 60X)
	Jump to a previous event (either a manually marked event or the start of the previous recorded segment)
	Jump to the next event (either a manually marked event or the start of the next recorded segment)

**Table D.** Video Controls (Sheet 2 of 2)

Icon	Description
	Fast-forward; repeatedly clicking the button increment fast forward speed between: normal, 4X, 15X, and 60X
	Frame-by-frame forward
	Start/Stop recording
	Export video
	Snapshot
	Zoom

## ADJUSTING THE IRIS

1. Click Iris . A vertical slider appears to adjust the light (refer to Figure 14).
2. Click the slider up or down to open or close the iris, respectively.



**Figure 14.** Iris Slider Control

## ADJUSTING THE FOCUS


1. Click Focus . A vertical slider appears (refer to Figure 15).
2. Click the slider up or down to focus near or far, respectively.



Figure 15. Focus Slider Control

## USING DIGITAL ZOOM CONTROLS

Digital zoom controls let you zoom specific areas of the video in live and playback modes. Digital zoom controls work on video from any camera, not just PTZ positioning systems. This feature is also available while viewing exported video with the "Player" capped? Refer to *Working with the Endura Player* on page 107 for additional information.

To use digital zoom controls, you must be viewing video from a camera in single view (1 x 1).

1. Select a camera, and then switch to a 1 x 1 view.
2. Click Digital Zoom. The view displays as picture-in-picture (PIP). Refer to Figure 16.
3. Click in the video. Rotate the mouse wheel away from you to zoom in; rotate the mouse wheel toward you to zoom out.
4. To zoom in or out on a different area of the scene, press and hold the left mouse button anywhere in the picture, and then move the mouse in any direction. A white frame inside the smaller picture indicates the part of the video being displayed.



**Figure 16.** Digital Zoom Controls

## CONTROLLING PTZ CAMERAS

If a camera has pan/tilt/zoom (PTZ) capabilities, the mouse pointer turns into cross-hairs when it is moved into a video pane.

To pan or tilt a PTZ-enabled camera:

1. Place the pointer in a video pane; the pointer becomes cross hairs (refer to Figure 17).
2. Click in the video pane, and then drag the camera view to the desired location.



**Figure 17.** PTZ Control

## USING PATTERNS, PRESETS, AND SCANS

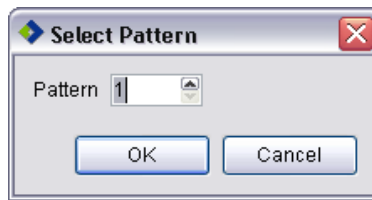
The DVR5100 remote client allows you to program the movements of PTZ-enabled cameras using patterns, presets, and scans. Patterns, presets, and scans may be set and activated directly from the video pane (as described below). You may also activate patterns and presets using the DVR5100 remote client's scripting feature (refer to *Creating Scripts* on page 102 and *Executing Scripts* on page 33).

### Patterns

A pattern is a memorized repeating of a series of pan, tilt, and zoom movements that can be recalled with a controller command. The type of camera positioning system determines the number of patterns that can be recorded and activated. Refer to each camera's programming manual for more information.

#### Programming a PTZ Pattern

1. Right-click in the video pane to show the shortcut menu.
2. Click Pattern > Record Pattern > Modify Pattern. The Select Pattern dialog box opens (refer to Figure 18).



**Figure 18.** Select a PTZ Pattern

3. Enter the pattern number you want to modify, and then click OK.
4. Left-click in the video pane to move the camera through the pattern of movements you want to record.
5. To end pattern recording, right-click in the video pane, and then click Pattern > Record Pattern > End Record.

#### Activating a PTZ Pattern

1. Right-click in the video pane of the desired camera, and then click Pattern > Select Pattern. The Select Pattern dialog box opens.
2. In the Select Pattern dialog box, enter the pattern number you want to activate.
3. Click OK.

#### Stopping a PTZ Pattern

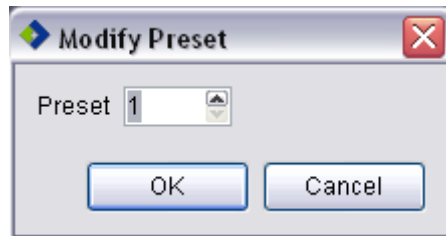
1. Right-click in the video pane of the desired camera.
2. Click Pattern > Stop Pattern. Or click anywhere in the video pane, and then move the mouse to stop the pattern.

### Presets

A preset allows you to direct a PTZ (camera positioning system) to move to a predetermined scene (such as a door) on a keyboard command or as the result of an alarm. The area is programmed in advance (preset). In addition to moving the camera, a descriptive title can appear in the video pane. The type of camera positioning system determines the number of presets available.

#### Recording a Preset

1. Use the mouse to move the camera to the preset position you want to record.
2. Right-click in the video pane of the desired camera.
3. Click Preset > Modify Preset. The modify Preset dialog box opens (refer to Figure 19).

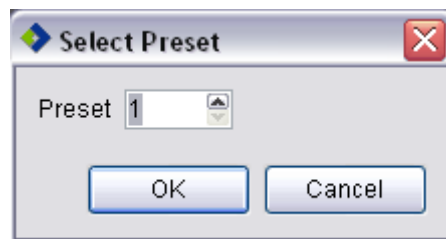


**Figure 19.** Modify a Preset

4. Enter the preset number you want to modify.
5. Click OK.

### **Activating a Preset**

1. Right-click in the video pane of the desired camera.
2. Click Preset > Select Preset. The Select Preset dialog box opens (refer to Figure 20).



**Figure 20.** Select a Preset

3. Enter the preset number you want to activate.
4. Click OK.

### **Scans**

To scan is to view an area by automatically panning a camera.

## Activating a Scan

1. Right-click in the video pane of the desired camera.
2. Click Scan, and then select one of the following scan options listed in the submenu (refer to Figure 21):
  - **Scan Random:** Pans the camera in an irregular, unsystematic pattern.
  - **Scan Frame:** A 3-second camera scan followed by a 3-second pause.
  - **Scan Auto:** Continuous panning.

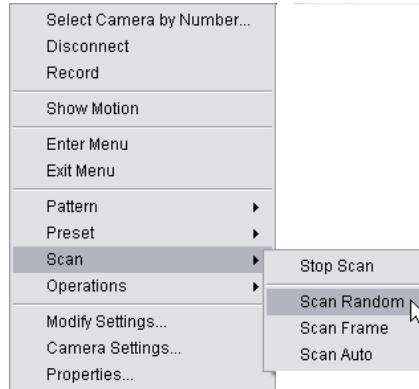


Figure 21. Activating a Scan

## Stopping a Scan

1. Right-click in the video pane of the desired camera.
2. Click Scan > Stop Scan.

## Rotate the Camera

1. Right-click in the video pane to display the Shortcut menu.
2. Select Operations > Rotate 180 Degrees (refer to Figure 22).

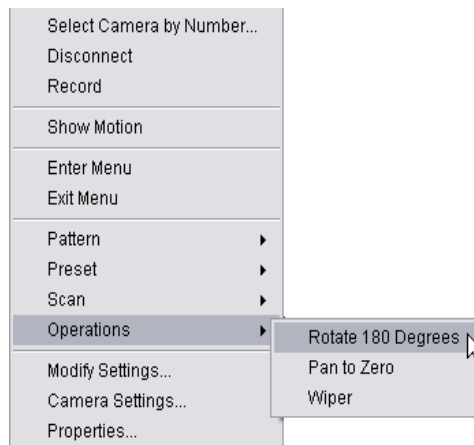


Figure 22. Rotate 180 Degrees

## Zoom In and Out

Rotate the mouse wheel toward you to zoom in and away from you to zoom out.



# MOTION DETECTION

If a camera has motion detection enabled, you can view the motion detection from that camera while monitoring live video. If motion detection is enabled while video is recorded, you can view it while playing back the recorded video.

To show motion detected on a camera:

- 1. Right-click in that camera's video pane.
- 2. Select Show Motion from the Shortcut menu (refer to Figure 23).

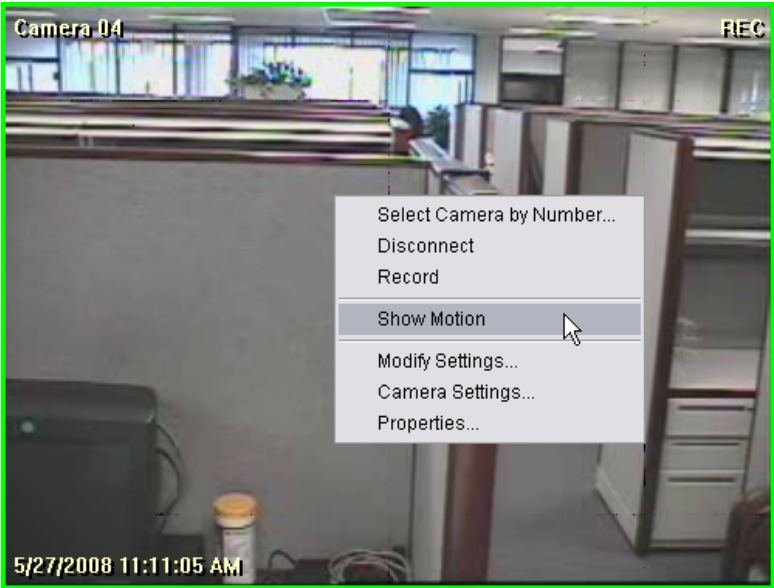


Figure 23. Showing Motion Detection

To hide motion detected on a camera:

- 1. Right-click in the desired camera's video pane.
- 2. Select Hide Motion from the Shortcut menu.

# ACTIVATING THE WIPER COMMAND

If a wiper command is available for a camera, a wiper option appears on the Shortcut menu when you right-click a video pane. Use this command to clean the camera lens.

- 1. Right-click in a video pane that contains a camera with a wiper command
- 2. Select Operations > Wiper (refer to Figure 24). Depending on the wiper settings for the selected camera, the wiper operates one or more times to clean the camera lens. Repeat the command as often as necessary.

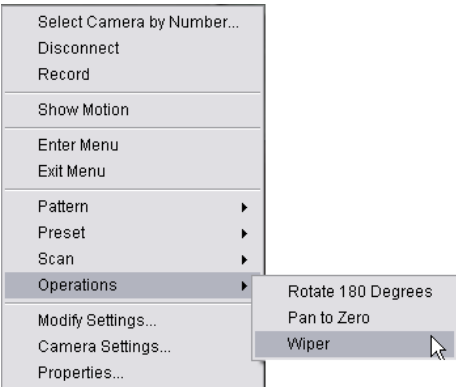


Figure 24. Activating the Wiper Command

# Device Properties and Settings

If you need assistance from Pelco Product Support, you may need to know the properties of a device including the IP address, serial number, and software version. For troubleshooting, you may also want to see specific information about the stream from a particular camera or diagnostic information about the current or recent status of the device. Device properties and settings may be accessed from the video pane (by right-clicking a Shortcut menu) or from the Setup screen.

**NOTE:** To edit a device's settings, right-click the video pane and select *Modify Settings* from the Shortcut menu. Or, go to Setup  and select the *Devices* tab. For information about configuring devices, refer to *Configuring Devices* on page 60.

## VIEWING DEVICE PROPERTIES

1. Right-click the selected device icon or the video pane displaying video from that device.
2. Select *Properties* from the Shortcut menu. The *Properties* screen appears displaying basic information about the device (refer to Figure 25):
3. Click *OK* to close this screen.



Figure 25. Device Properties Screen

## VIEWING ADVANCED DEVICE PROPERTIES

Advanced device properties contain detailed information about the software version currently running on the device.

1. Click "Advanced..." The *Advanced Properties* dialog box appears displaying additional details about the device's software: Name and Version (refer to Figure 26).
2. Click *OK* to close this dialog box.

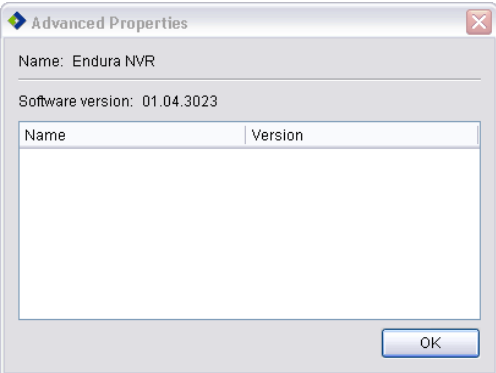


Figure 26. Advanced Properties Dialog Box

## VIEWING DIAGNOSTIC PROPERTIES

The DVR5100 can be queried for diagnostic information.

1. Click "Diagnostics..." The Diagnostic dialog box appears displaying additional details about the status of the DVR5100 (refer to Figure 27):
  - **Type:** Indicates the diagnostic information type.
  - **Information:** A status summary of the device.
2. Click Details to view more information about the status of the device. Click OK to close this screen.

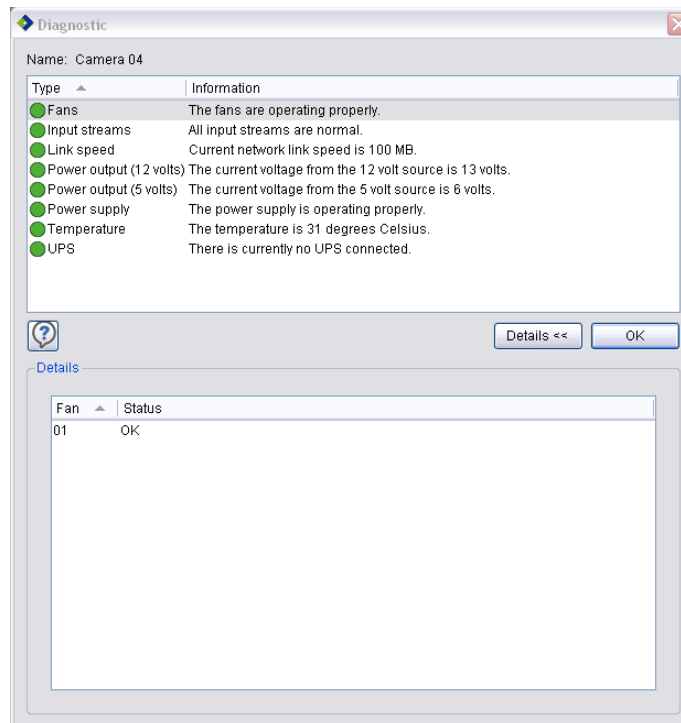


Figure 27. Diagnostic Dialog Box with Details

## CAMERA SETTINGS

While monitoring live video, you can view information about camera settings (such as bit rate, frame rate, resolution, and format). The DVR5100 remote client allows access to this information directly from the video pane.

1. Right-click the video pane displaying video from the desired camera. The video pane Shortcut menu appears.
2. Select Camera Settings from the Shortcut menu. The Camera Settings dialog box appears (refer to Figure 28).

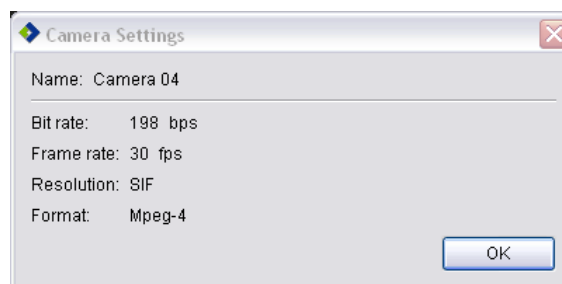


Figure 28. Camera Settings Dialog Box

# Using Camera Menus

The DVR5100 remote client supports the display and navigation of programming menus built into cameras (such as the Spectras Series and the CCC5100H Series). Only cameras that support remote programming through Pelco Coaxitron® or Pelco D protocols can use this feature.

## ACCESSING A CAMERA MENU

1. Right-click in the video pane, and then select Enter Menu from the Shortcut menu. The camera menu appears (refer to Figure 29).
2. Navigate up and down the camera menu by using the up and down arrow keys on the keyboard.



**Figure 29.** Displaying a Camera Menu

3. Select a menu item by pressing the Enter key on the keyboard.

## EXITING A CAMERA MENU

To exit a camera menu:

1. Right-click in the video pane.
2. Select Exit Menu from the Shortcut menu.

**NOTE:** DVR5100 remote client menu options work with ExSite® and new Spectra® cameras. You cannot exit the menu of an Esprit®, Spectra II, or CCC5100 Series camera by right-clicking and using the DVR5100 remote client Shortcut menu. To exit the on-screen menus of one of these cameras, navigate to the EXIT option in the menu, and then press the Enter key. You may need to back up through several menu levels to reach the final EXIT that will close the menu.

# Executing Scripts

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A DVR script is like a macro, but it provides more power and flexibility. Scripts can be used to control most system functions and can be combined in almost any order.

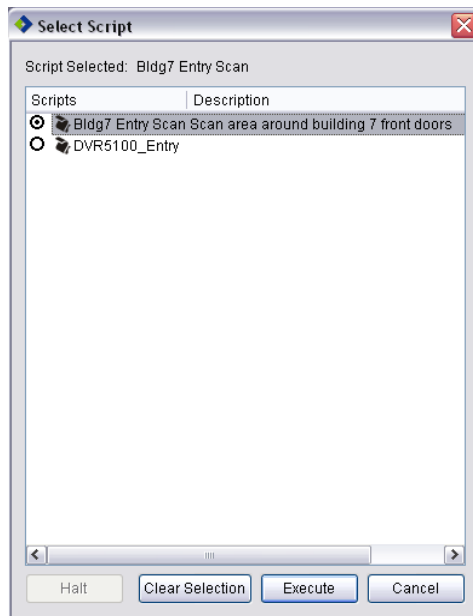
Table E describes the supported scripts. For information about programming scripts, refer to *Creating Scripts* on page 102.

**Table E. Remote Client Scripts**

Action	Description
Display Video	Displays video from the indicated camera.
Start Recording	Starts recording video from the indicated video source.
Run Script	Initiates execution of a remote script.
Wait	Pauses execution of a script for a given number of seconds. Insert this command between presets or cameras when scripting a tour so video from each source will be displayed for an adequate length of time.
Send Mail	Sends e-mail message to a given recipient.
Activate Relay	Activates a relay device.
Preset	Moves a camera to a specified preset. A preset allows you to direct a PTZ (camera positioning system) to a predetermined location.
Pattern	Runs a specified pattern on a camera. A pattern allows you to program the movements of PTZ-enabled cameras.
Start Loop	Indicates the starting point for a series of commands that are repeated. Any commands between this action and the End Loop action will be repeated.
End Loop	Indicates the end point for a series of commands that are repeated. Any commands between the Start Loop action and this action will be repeated.
Stop Pattern	Stops the pattern from running.

## ACTIVATING A SCRIPT MANUALLY

1. Select Tools. The tools menu appears.
2. Select Execute Script (Ctrl+Alt+S). The Select Script dialog box appears (refer to Figure 30).
3. Click the option button beside the script you want to run.



**Figure 30.** Selecting a Script to Execute

4. Click Execute to activate the script, or click Cancel to exit without activating the script.

## STOPPING A SCRIPT

1. Go to Tools > Execute Script (Ctrl+Alt+S). The Select Script dialog box appears. Currently running scripts are indicated by a green script icon.
2. Click the option button beside the script you want to stop.
3. Click Halt.

# Alarms, Relays, and Manual Recording

## WORKING WITH ALARMS

An alarm can be triggered by motion, a physical switch, or a device condition. Conditions can be applied to alarm events through event groups and scripting. An alarm might only trigger under certain conditions, or multiple alarms might be necessary to trigger an event. You can limit which operators can access and respond to an alarm. A user must be subscribed to an alarm to see an alarm notification. Enable or disable each of these notifications for individual users from the Setup screen Users tab.

Figure 31 shows the Alarm Manager screen.

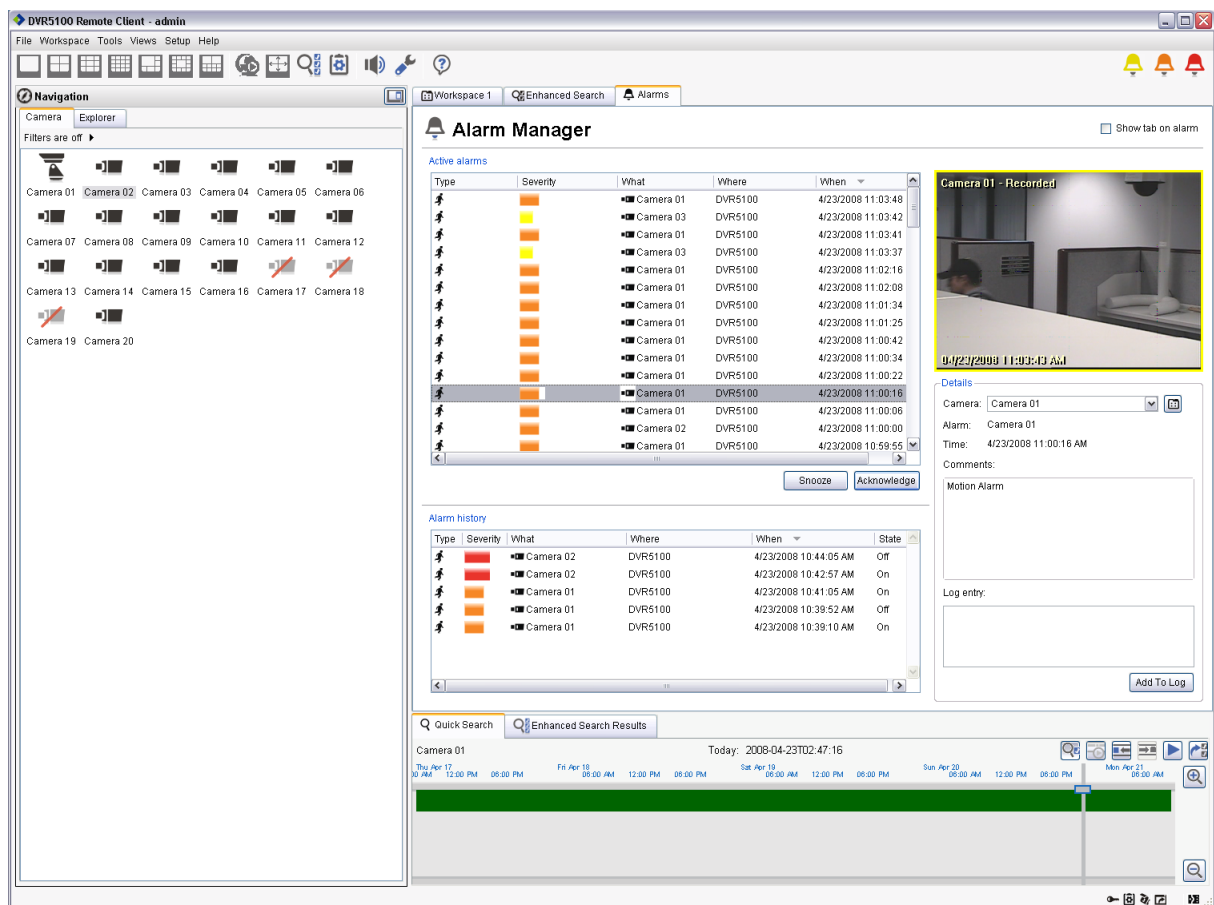



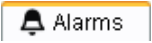
Figure 31. Alarm Manager Screen

## ALARM NOTIFICATION

The DVR5100 remote client allows you to acknowledge or snooze an alarm notification. You can also read instructions or comments about the alarm, or add a note to the system log explaining your response. If there are more alarms than can fit in the list, you can resize the dialog box by dragging the lower-right corner to a larger size. All alarm activity is automatically logged on the system log.

In addition to user notifications, alarms can also trigger the activation of scripts that set one or more events in motion. Possible scripted responses to an alarm include e-mails, positioning cameras, and recording and displaying video from nearby cameras. You can program scripts through the Scripts tab in the Setup screen. For information about creating a script, refer to *Creating Scripts* on page 102.

The DVR5100 remote client Alarms tab lists those alarms that the current user is authorized to view. This tab is empty if you select not to subscribe to any alarm notifications. You can be notified of the alarm event in several ways:

- You can set an alarm notification to sound.
- You can receive an e-mail
- The Alarms tab  appears at the top of the DVR5100 remote client application screen. The alarms are color-coded as follows:
  - **Red:** Critical alarm
  - **Orange:** Major alarm
  - **Yellow:** Minor alarm
  - **Green:** Normal alarm
- The alarm notification icon flashes in the Alarms tab . Left-click the alarm notification to select a specific alarm. You can also select a group of alarms by using the Ctrl or Shift key while you click the alarms with your mouse.

## ACKNOWLEDGING AN ALARM

1. In the Alarm Manager event pane, click the alarm occurrences you want to acknowledge.
2. Click the Acknowledge button. The alarm occurrence disappears from the dialog box and the action is recorded in the alarm log and system log.

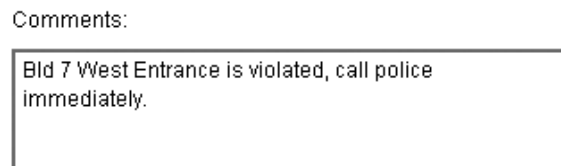
## SNOOZING AN ALARM

To snooze an alarm (that is, postpone the response, and then ask to be reminded after a short period):

1. In the Alarm Manager “Active alarms” pane, click the alarm occurrences you want to snooze.
2. Click Snooze. The alarm occurrences disappear from the dialog box and the snooze action is recorded in the alarm log and system log.
3. After a delay, the alarm notification will reappear with a clock icon indicating that the alarm was previously snoozed.

## READING ALARM COMMENTS

1. In the Alarm Manager “Active alarms” pane, click the alarm occurrence for which you want to read the comments.
2. In the Comments box, view information about the selected alarm event and how to respond to the alarm (refer to Figure 32).



**Figure 32.** Alarm Information



## ADDING A NOTE TO THE SYSTEM LOG

The DVR5100 remote client allows you to add information about an alarm event in the system log. In the space provided, describe any actions you have taken in response to the alarm. For example, you might note whether you conducted a physical security check; inspected any malfunctioning hardware; or notified someone, such as building maintenance, a supervisor, or a network administrator.

1. In the Alarm Manager event pane, click the alarm occurrence for which you want to add a note.
2. In the “Log entry” text box, describe any actions you have taken in response to the alarm.
3. Click the Add To Log button. The note is added to the system log and is cleared from the “Log entry” text box.

The screenshot shows the Alarm Manager interface. At the top, there are tabs for 'Workspace 1', 'Enhanced Search', and 'Alarms'. The 'Alarms' tab is active. Below the tabs, there is a bell icon and the text 'Alarm Manager'. To the right of this, there is a checkbox labeled 'Show tab on alarm'. Below the 'Alarm Manager' header, there is a section for 'Active alarms'. This section contains a table with columns: Type, Severity, What, Where, When, and State. The table lists several alarm events for 'Camera 01' from 'DVR5100' on '4/15/2008'. The 'When' column shows times ranging from 3:22:22 PM to 3:29:37 PM. The 'State' column shows 'Off' and 'On'. Below the table, there are 'Snooze' and 'Acknowledge' buttons. To the right of the table, there is a video feed labeled 'Camera 01 - Recorded' showing a room with a bed and a desk. Below the video feed, there is a 'Details' section. This section contains fields for 'Camera' (Camera 01), 'Alarm' (Camera 01), and 'Time' (4/15/2008 3:29:02 PM). There is also a 'Comments' section with a text area containing 'Motion Alarm'. Below the comments, there is a 'Log entry' section with a text area containing 'Notify security of excessive traffic.' and an 'Add To Log' button.

Type	Severity	What	Where	When	State
Person	High	Camera 01	DVR5100	4/15/2008 3:29:37 PM	Off
Person	High	Camera 01	DVR5100	4/15/2008 3:29:32 PM	On
Person	High	Camera 01	DVR5100	4/15/2008 3:29:02 PM	Off
Person	High	Camera 01	DVR5100	4/15/2008 3:28:57 PM	On
Person	High	Camera 01	DVR5100	4/15/2008 3:25:43 PM	Off
Person	High	Camera 01	DVR5100	4/15/2008 3:24:43 PM	Off
Person	High	Camera 01	DVR5100	4/15/2008 3:24:26 PM	Off
Person	High	Camera 01	DVR5100	4/15/2008 3:24:20 PM	On
Person	High	Camera 01	DVR5100	4/15/2008 3:24:16 PM	On
Person	High	Camera 01	DVR5100	4/15/2008 3:24:08 PM	Off
Person	High	Camera 01	DVR5100	4/15/2008 3:24:01 PM	On
Person	High	Camera 01	DVR5100	4/15/2008 3:23:43 PM	Off
Person	High	Camera 01	DVR5100	4/15/2008 3:23:38 PM	On
Person	High	Camera 01	DVR5100	4/15/2008 3:23:38 PM	Off
Person	High	Camera 01	DVR5100	4/15/2008 3:22:51 PM	Off
Person	High	Camera 01	DVR5100	4/15/2008 3:22:45 PM	On

Type	Severity	What	Where	When	State
Person	High	Camera 01	DVR5100	4/15/2008 3:25:37 PM	On
Person	High	Camera 01	DVR5100	4/15/2008 3:24:37 PM	On
Person	High	Camera 01	DVR5100	4/15/2008 3:23:32 PM	On
Person	High	Camera 01	DVR5100	4/15/2008 3:22:22 PM	On

Figure 33. Adding a Note to System Log

## SENDING ALL ASSOCIATED CAMERAS TO THE WORKSPACE

The DVR5100 remote client allows you to view video from all cameras associated with an alarm event. Video from each camera starts playing at the same time. You can use the playback controls for each view pane to control how video from each associated camera is viewed.

To view video for an alarm event from all associated cameras:

1. In the Alarm Manager event pane, click an alarm occurrence. Video for the alarm event is displayed in the Alarm Manager view screen (refer to Figure 34).

Workspace 1 Enhanced Search Alarms

## Alarm Manager Show tab on alarm

Active alarms

Type	Severity	What	Where	When	State
Camera 01	Off	DVR5100	4/15/2008 3:33:13 PM	On	
Camera 01	Off	DVR5100	4/15/2008 3:31:44 PM	Off	
Camera 01	On	DVR5100	4/15/2008 3:31:38 PM	On	
Camera 01	Off	DVR5100	4/15/2008 3:29:37 PM	Off	
Camera 01	On	DVR5100	4/15/2008 3:29:32 PM	On	
Camera 01	Off	DVR5100	4/15/2008 3:29:02 PM	Off	
Camera 01	On	DVR5100	4/15/2008 3:28:57 PM	On	
Camera 01	Off	DVR5100	4/15/2008 3:25:43 PM	Off	
Camera 01	Off	DVR5100	4/15/2008 3:24:43 PM	Off	
Camera 01	On	DVR5100	4/15/2008 3:24:16 PM	On	
Camera 01	Off	DVR5100	4/15/2008 3:24:08 PM	Off	
Camera 01	On	DVR5100	4/15/2008 3:24:01 PM	On	
Camera 01	Off	DVR5100	4/15/2008 3:23:43 PM	Off	
Camera 01	On	DVR5100	4/15/2008 3:23:38 PM	On	
Camera 01	Off	DVR5100	4/15/2008 3:23:38 PM	Off	
Camera 01	Off	DVR5100	4/15/2008 3:22:27 PM	Off	

Snooze Acknowledge

Alarm history

Type	Severity	What	Where	When	State
Camera 01	On	DVR5100	4/15/2008 3:25:37 PM	On	
Camera 01	On	DVR5100	4/15/2008 3:24:37 PM	On	
Camera 01	Off	DVR5100	4/15/2008 3:24:26 PM	Off	
Camera 01	On	DVR5100	4/15/2008 3:24:20 PM	On	
Camera 01	On	DVR5100	4/15/2008 3:23:32 PM	On	
Camera 01	Off	DVR5100	4/15/2008 3:22:51 PM	Off	
Camera 01	On	DVR5100	4/15/2008 3:22:45 PM	On	

Camera 01 - Recorded

4/15/2008 03:31:56 PM

Details

Camera: Camera 01

Alarm: Camera 01

Time: 4/15/2008 3:31:44 PM

Comments:

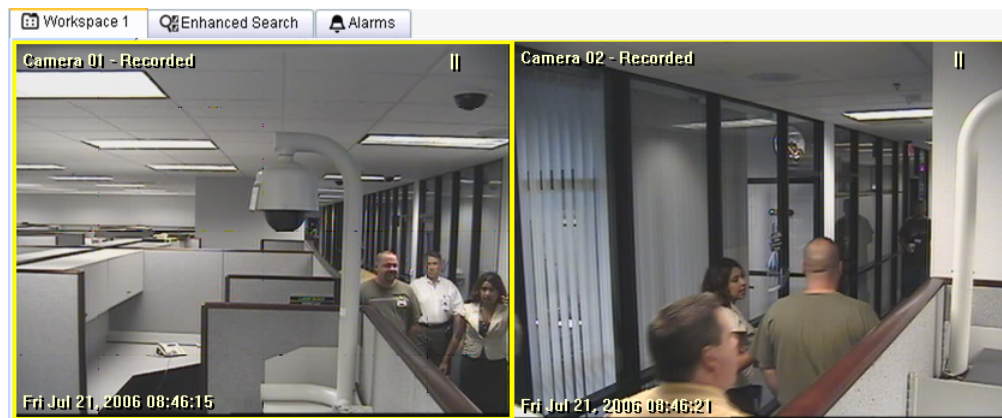
Motion Alarm

Log entry:

Add To Log

**Figure 34. Selecting an Alarm Event**

- Click "Send All Associated Cameras to Workspace 1". The video from the associated cameras is displayed in its own view pane (refer to Figure 35).




**Figure 35. Associated Cameras Sent to Workspace for Viewing Video**

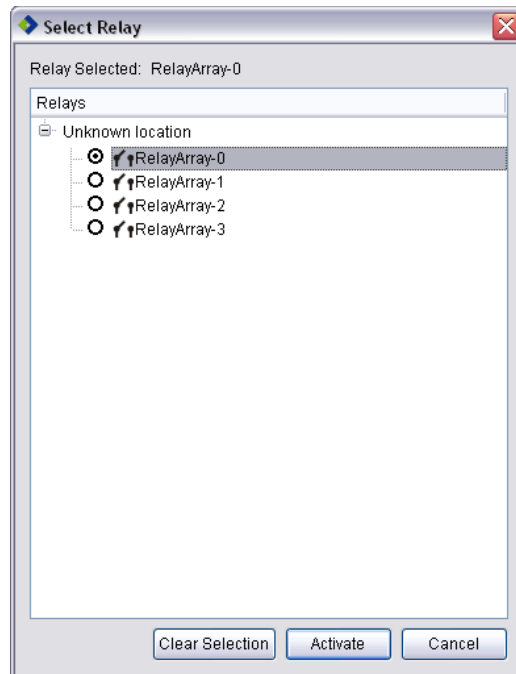
- Use the playback control for each view pane to control how video is played back.

## ACTIVATING RELAYS

The DVR5100 remote client can be used to activate output relays manually. A relay can be activated for a predetermined period of time (the dwell time), or it can remain latched until there is another signal to release the relay.

To activate a relay:

1. Go to Tools > Activate Relay (Ctrl+Alt+R). The Select Relay dialog box opens (refer to Figure 36).
2. Click Expand .
3. Click the option button beside the relay you want to activate.
4. Click Activate to activate the selected relay, click Cancel to exit without activating the relay, or click Clear Selection to deactivate a previously selected relay.




**Figure 36.** Activating a Relay

# MANUALLY RECORDING VIDEO AND AUDIO

The DVR5100 remote client allows you to record video clips while viewing live video without setting up a recording schedule. An additional 30 seconds of video is included at the beginning of the recording to ensure that you record all of the events leading up to a manually recorded event. Audio, if available, is also included in manual recordings.

## MANUALLY RECORDING A VIDEO SEGMENT

To record a video segment manually, perform one of the following options:

- Place the mouse pointer over the video pane until the video controls appear, and then click Record .
- Right-click in the video pane, and then select Record from the Shortcut menu (refer to Figure 37).

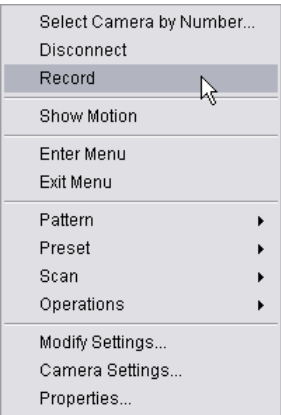


Figure 37. Manually Recording Video

While recording is in progress, the Record button blinks blue alternating with green, and the border of the video pane turns red (refer to Figure 38).

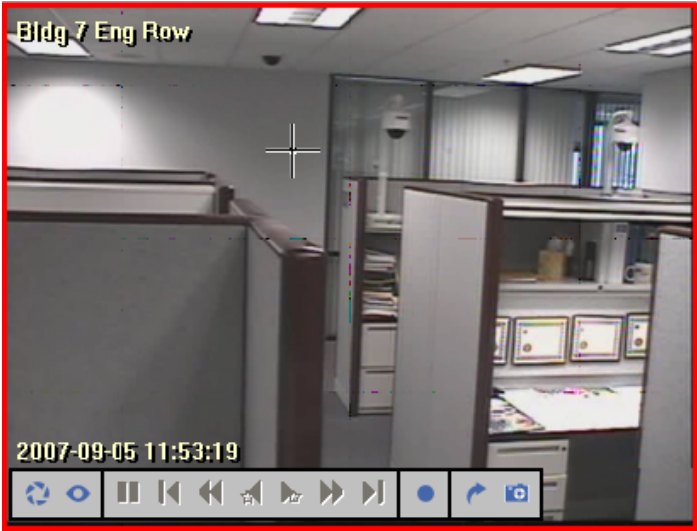



Figure 38. Recording in Progress

## STOPPING A MANUAL RECORDING

To stop a manual recording, perform one of the following options:

- Place the mouse pointer in the video pane until the video controls appear, and then click the blinking yellow Record icon .
- You can also right-click in the video pane and select Stop Recording from the Shortcut menu that appears. Verify that the border around the pane changes to green.

# Searching for Video

The DVR5100 remote client offers two options to search for recorded video: Quick Search and Enhanced Search. Quick Search allows you to search for video by a single device, date, and time. Enhanced Search allows you to search for video by multiple devices, date/time ranges, and events.

## QUICK SEARCH

The Quick Search screen provides a user-friendly interface for selecting the date and time of the recorded video you want to view (refer to Figure 39). You may also export video from this interface. Different types of recorded video are represented by four different colored bars:

- **Green:** Continuous recording
- **Red:** Alarm recording
- **Blue:** Motion recording
- **Yellow:** Manual recording

You can also locate marked or locked video as follows:

- **Marked Video:** The video time line is marked with a star so specific video can be located easily in a Quick or Enhanced Search.
- **Locked Video:** The video time line contains a white line and brackets that reflect the time range of a locked video clip.

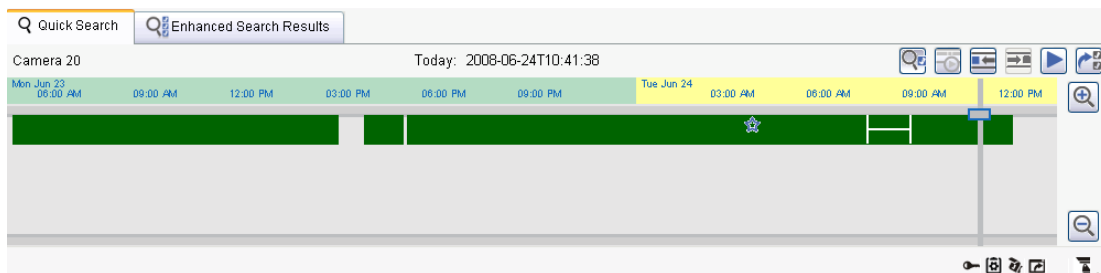




Figure 39. Quick Search: Day View

To perform a quick search:

1. Select a video pane that is currently displaying video.
2. Click the Quick Search tab. The time line automatically displays recorded video for the selected video pane (refer to Figure 40).
3. Perform one of the following options:
  - Click Automatic Quick Search  (enabled by default) to disable the automatic Quick Search results. If you disable Automatic Quick Search, you must click a camera in the navigation pane, and then drag it to the Quick Search view area. This initiates quick search and populates the Quick Search view area with search results for the selected camera. Disabling this option saves valuable network bandwidth when connecting across a low bandwidth connection.
  - Click Automatic Quick Search again to turn on Automatic Quick Search results. With Automatic Quick Search turned on, click a camera view pane to initiate Quick Search and populate the Quick Search view area with search results for the selected camera.
4. To change the timeline view from days to hours, minutes, or seconds of video, zoom in using one of the following methods:
  - Scroll forward by rotating your mouse wheel.
  - Click zoom in . One click zooms to hours, two clicks zooms to minutes, and three clicks zooms to seconds.

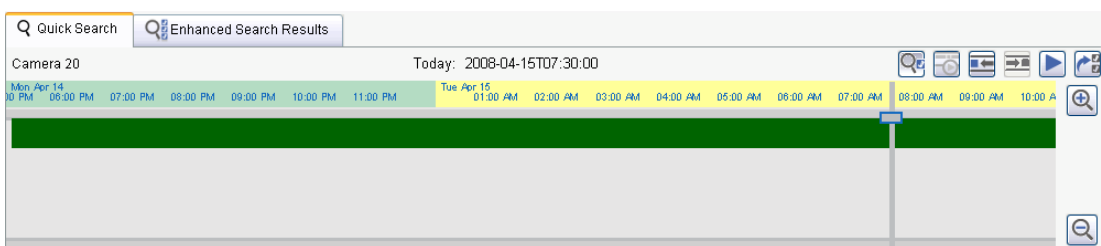






Figure 40. Quick Search in Hour View

5. To change the timeline view from hours, minutes, or seconds to a larger increment, zoom out using one of the following methods:
  - Scroll backward by rotating your mouse wheel.
  - Click zoom out .
6. To move to a different recording in the time line, press N to select the next recording or P to select the previous recording. You can also click  or  to skip to the next or previous recorded video clip along the timeline.
7. Click Play  to play back video from the currently selected point on the time line. You can also double-click the time line mouse pointer to play back video.
8. To fast-forward or reverse, use the on-screen video controls or drag the time line scroll bar to a different location (refer to Figure 41). Refer to *Playing Back Video* on page 47 for further information.



**Figure 41.** Video Controls: Playback

## ENHANCED SEARCH


The Enhanced Search interface allows you to create a more fine-tuned set of search results, allowing you to search across a specific date range (refer to Figure 42). It also allows you to limit your search to particular cameras or certain types of events, such as motion or alarms.


The Enhanced Search interface is divided into three main sections:

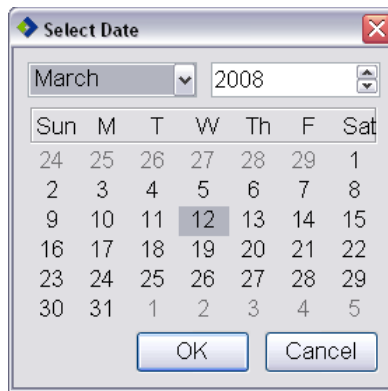
- Time:**
  - 1 Select your time range.
    - ☐ Past 24 hours
    - ☐ Past 3 days
    - ☐ Past 7 days
    - ☒ Specify time range
  - Start:
    - Date: 08/16/2007
    - Time: 11:20:22 AM
  - Stop:
    - Date: 08/17/2007
    - Time: 11:20:22 AM
- Filters:**
  - 2 Apply filters to refine your search.
    - Search Type:
      - ☒ Video
      - ☐ Event
    - Devices:
      - All devices
    - Recording Types:
      - ☒ Continuous
      - ☒ Alarms
      - ☐ Motion
      - ☐ Manual
- Search:**
  - 3 Perform your search.
    - Search button

**Figure 42.** Enhanced Search

## PERFORMING AN ENHANCED SEARCH

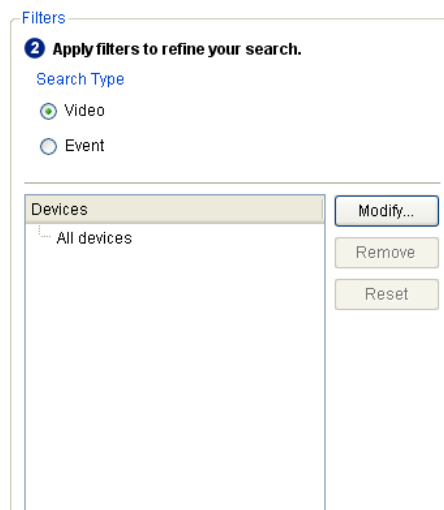
1. Click the Enhanced Search workspace tab or click Enhanced Search  in the toolbar.
2. To select the date and time range, perform one of the following options:
  - a. To choose a preset option, click the option button to select one of three options: Last 24 hours, Past 3 days, or Past 7 days.
  - b. To specify the date range manually, select one of three options:

- (1) **Use the calendar:** Click the calendar icon  and select a date from the calendar to set your search start date (refer to Figure 43). Repeat this process to set the stop date.



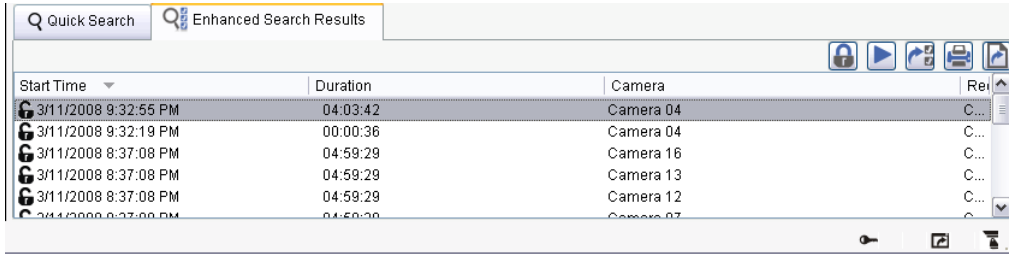
**Figure 43.** Selecting a Date

- (2) **Type the date:** Click in the Date box, delete the current date, and then type your search start and stop dates.
  - (3) **Use the Date arrows:** Click the month field, and then use the arrows to scroll through the numbered months (1-12) until you reach desired month(s) for your search start and end dates. Repeat the same process for setting the day and the year.
- c. To specify the time range manually, do one of the following:
- (1) **Type the time:** Click in a Time field, delete the current time, and then type the desired start and end time of your search.
  - (2) **Use the Time arrows:** Click the hour field, then use the up and down arrows to scroll through the numbered hours (1–12) until you reach the desired hour for the search start and end time. Repeat the same process for setting the minutes, seconds, and AM or PM.
3. For the search filters, accept the system defaults (refer to Figure 44). By default, all cameras and recording types are included in your search.



**Figure 44.** Enhanced Search Filters Area


4. In the Search area, click Search. The search results are displayed in the Enhanced Search view area (refer to Figure 45).

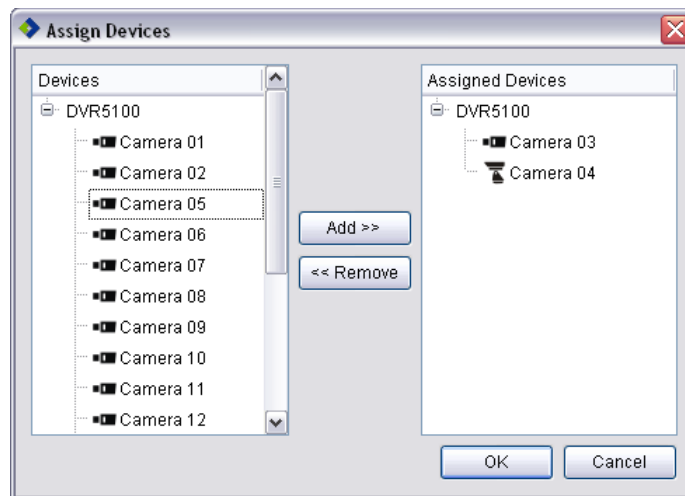


Start Time	Duration	Camera
3/11/2008 9:32:55 PM	04:03:42	Camera 04
3/11/2008 9:32:19 PM	00:00:36	Camera 04
3/11/2008 8:37:08 PM	04:59:29	Camera 16
3/11/2008 8:37:08 PM	04:59:29	Camera 13
3/11/2008 8:37:08 PM	04:59:29	Camera 12
3/11/2008 8:37:08 PM	04:59:29	Camera 07

**Figure 45.** Enhanced Search Results

## SPECIFYING CAMERAS AS SEARCH CRITERIA

1. In the Time area of the Enhanced Search screen, select the date and time range.
2. In the Filters area, click Modify. The Assign Devices dialog box opens (refer to Figure 46).
3. In the Devices pane, click Expand  to display the camera devices.
4. Select the cameras to be included in the search.



**Figure 46.** Assign Devices Dialog Box

5. Click Add >>. The selected devices are moved to the Assigned Devices pane.
6. Click OK.
7. In the Search area, click Search. The search results are displayed in the Enhanced Search view area.

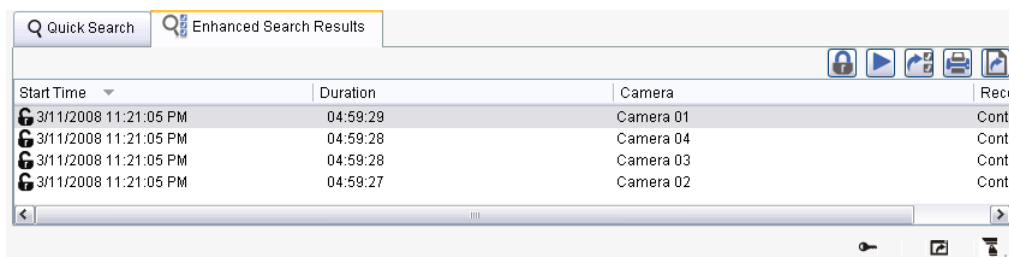
## REMOVING CAMERAS

1. Select the camera you want to remove from the Devices list.
2. Select Remove to remove that camera from the camera list to use in the search.



## SPECIFYING RECORDING TYPE FILTERS

1. In the Filters area, select one of the following as the search type:
  - **Video (default):** This search type allows you to include locked video and continuous recording, alarms, motion, and manual recording types as part of the filter.
  - **Event:** This search type allows you to include alarm and motion events as part of the filter. Locked video and continuous and manual recording types are not included as part of the filter.
2. Based on the search type selected in step 1, perform one of the following options:
  - To search for video in the Recording Types area, select Video under Search Type, and then select the Locked video check box to base your search criteria on locked video. Or, select the check box for any or all of the following: Continuous, Alarms, Motion, Manual, and Marked.
  - To search for events in the Event Types area, select Event under Search Type, and then click the Alarms check box to include alarms as part of the search criteria. Or, you can select the Motion check box to include motion as part of the search criteria.
3. To start the enhanced search, click Search. To cancel an enhanced search while it is running, click Cancel. The search results are displayed in the Enhanced Search view area as follows: Locked/unlocked status (icon), Start Time, Duration (in days, hours, minutes, and seconds), Camera, and Recording Type (continuous, alarm, motion, and manual). Refer to Figure 47.



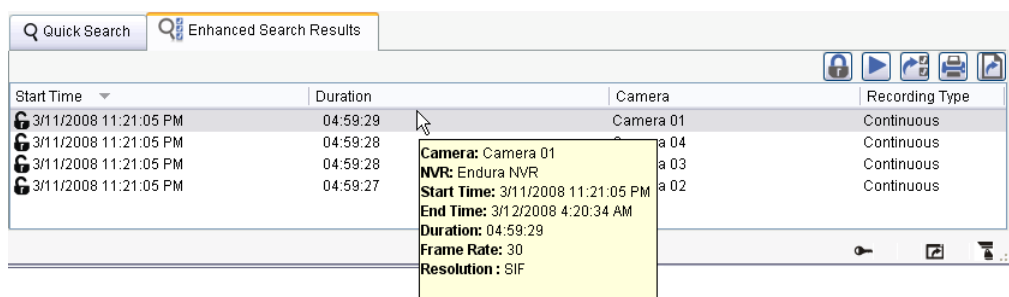
Start Time	Duration	Camera	Recording Type
3/11/2008 11:21:05 PM	04:59:29	Camera 01	Continuous
3/11/2008 11:21:05 PM	04:59:28	Camera 04	Continuous
3/11/2008 11:21:05 PM	04:59:28	Camera 03	Continuous
3/11/2008 11:21:05 PM	04:59:27	Camera 02	Continuous

Figure 47. Enhanced Search Results

## REVIEWING ENHANCED SEARCH RESULTS

Enhanced search offers additional features for managing search results. You can lock video, print search results, and export results to \*.csv format.

1. Rest your mouse pointer over a search result to view additional information (refer to Figure 48).



Start Time	Duration	Camera	Recording Type
3/11/2008 11:21:05 PM	04:59:29	Camera 01	Continuous
3/11/2008 11:21:05 PM	04:59:28	Camera 04	Continuous
3/11/2008 11:21:05 PM	04:59:28	Camera 03	Continuous
3/11/2008 11:21:05 PM	04:59:27	Camera 02	Continuous



Camera: Camera 01  
NVR: Endura NVR  
Start Time: 3/11/2008 11:21:05 PM  
End Time: 3/12/2008 4:20:34 AM  
Duration: 04:59:29  
Frame Rate: 30  
Resolution: SIF

Figure 48. Viewing Additional Enhanced Search Results

If your search retrieves no results, a message appears.

2. To play back video, click one of the search results and then click Play Video . For more information about playing back video, refer to *Playing Back Video* on page 47.

## LOCKING AND UNLOCKING SEARCH RESULTS

The locked and unlocked icon is displayed beside the search result. When you lock a video, the “unlock video” icon  switches to the “lock video” icon . When you lock a video clip, a dialog box appears for you to enter a comment about the video clip for future reference. To view the comment, move your mouse pointer over the video clip in a search results screen.

### Locking a Search Result

1. Click a search result.
2. In the Enhanced Search Results screen, click “lock video” . The Comment dialog box opens (refer to Figure 49).

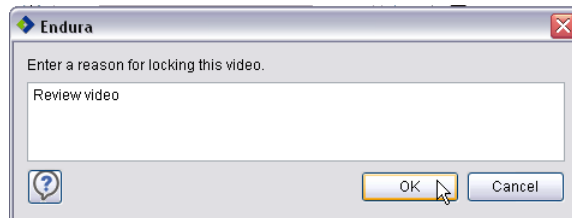


Figure 49. Locked Video Dialog Box

3. (Optional) Enter a comment in the text box, and then click OK to save the comment. Or, click Cancel to exit the dialog box without saving the contents.

### Unlocking a Search Result

1. Click a search result.
2. In the Enhanced Search Results view screen, click “Unlock video.”

## PRINTING ENHANCED SEARCH RESULTS

The DVR5100 remote client uses the Windows print feature to print Enhanced Search results.

1. Click a search result from the Enhanced Search Results screen (refer to Figure 50).

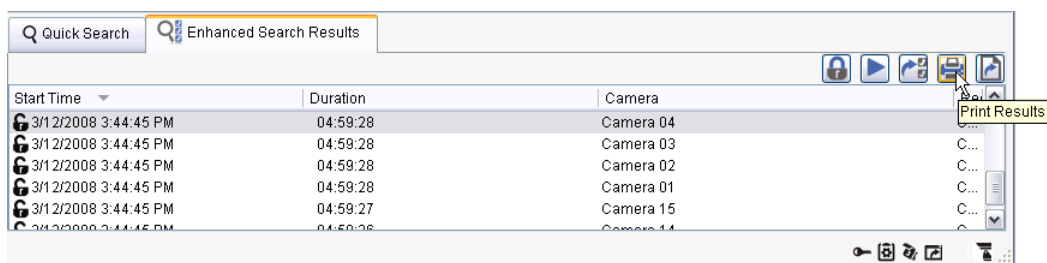



Figure 50. Printing an Enhanced Search Result

2. In the Enhanced Search view area, click Print . The Print dialog box opens.
3. Select a printer, and then click Print.

# Playing Back Video

While working with recorded video, the video pane border changes from green to yellow. Each video pane has its own set of playback controls. These controls appear in the lower-left corner when you place your mouse pointer anywhere within a video pane (normally visible in 1 x 1, 2 x 2, or 3 x 3 layout; visible in all layouts in Extended View). These controls do not appear if a camera is not selected. To hide the video controls, move your mouse pointer outside the video pane. If you are watching live video while it is being recorded, click any reverse button to begin reviewing previously recorded video immediately. Figure 51 shows a view pane and the playback controls.



**Figure 51.** Video Playback Controls

- ❶ Play/Pause.
- ❷ Frame-by-frame reverse.
- ❸ Fast reverse. Repeatedly clicking this button increases the fast reverse speed ((4X, 15X, and 60X the normal speed).
- ❹ Jump to a previous event (either a manually marked event or the start of the previous recorded segment).
- ❺ Jump to the next event (either a manually marked event or the start of the next recorded segment).
- ❻ Fast-forward. Repeatedly clicking this button increases the fast-forward speed (4X, 15X, and 60X the normal speed)
- ❼ Frame-by-frame forward.
- ❽ Mark an event. During playback, use this button to flag an event for later review. Marked events appear as yellow stars in the Quick Search tab.  
**NOTE:** Marking an event does not lock the video clip; use Enhanced Search to lock and unlock video clips.
- ❾ Export video.  
**NOTE:** This will export the frames as you see them. For a full export of all frames recorded on the DVR, use the Export Manager (refer to *Exporting Video* on page 50).
- ❿ Snapshot.

Forward or reverse speeds can be increased by clicking the button additional times. Table F describes the playback speeds.

**Table F. Playback Speed**

Number of Clicks	Speed
1	4X normal speed
2	15X normal speed
3	60X normal speed

The current direction (<< or >>) and speed (4x, 15x, 60x) appear in the upper-right corner of the video pane. To decrease the forward or reverse speed, click the pause button once, and then click the direction button (<< or >>). Click once to reduce the speed to one-fourth of the normal speed for the selected direction. Click twice to reduce the speed to half of the normal speed. Click the pause button again to stop the reduced speed playback. To resume playback at normal speed, click the pause button two times; the first click pauses the video, the second starts playback at normal speed.

Figure 52 shows the forward speed set to 15x.



**Figure 52. Forward Direction Speed**

## STANDARD PLAYBACK


To playback recorded video from a single camera:

1. Search for the video you want to play back using Quick Search or Enhanced Search.
2. Click a pane to view video playback.
3. Click a video search result.
4. In the Quick Search or Enhanced Search view area, click Play ►.

## SYNCHRONOUS PLAYBACK

You can select several cameras and have them all start playing back from the same moment in time. By activating Synchronous Playback, you can select recorded video from up to four cameras and use a single set of video controls to play, pause, forward, and reverse all four cameras.

To enable synchronous playback:

1. Search for the video you want to play back using either Quick Search or Enhanced Search.
2. On the DVR5100 remote client toolbar, click Synchronous Playback . The currently selected workspace switches to a 2 x 2 layout, the borders of the video panes turn yellow, and the synchronous playback icons appear in the center of each pane (refer to Figure 53).
3. Drag and drop a search result in the upper-left video pane. The message “Primary ready” appears in the pane.
4. Select up to three other cameras from which you want to play back video. Drag and drop the cameras into the other video panes. The video from the cameras does not appear until you start playback in the primary (upper-left) video pane. The message “Secondary ready” appears in the center of the other panes with video assigned to them (refer to Figure 53).

**NOTE:** When start and stop times of the primary and secondary streams are not identical, video in all of the video panes begins to play at the primary video pane start time. Click Synchronous Playback to jump to the next opportunity to display synchronized video. In some cases, video in the secondary panes plays at different speeds until it synchronizes with video in the primary pane.

5. Use the video controls panel in the upper-left video pane to play, pause, fast-forward or reverse, and frame forward or reverse.
6. Click Synchronous Playback again to exit Synchronous Playback mode.

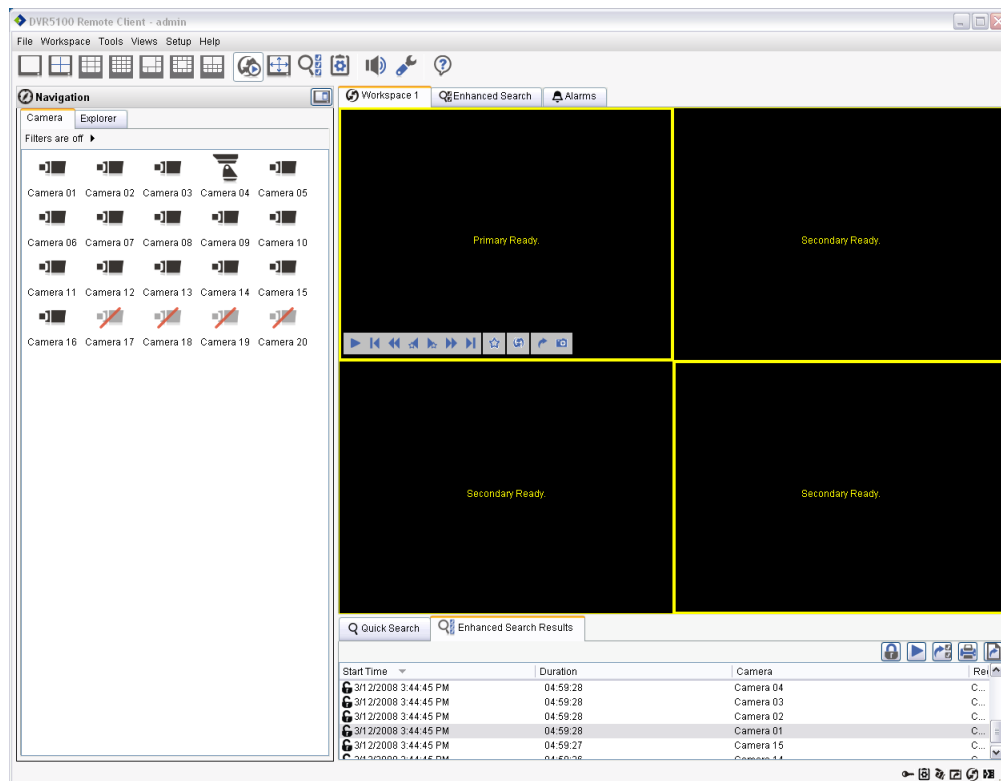


Figure 53. Synchronous Playback

# Exporting Video

## EXPORTING LIVE OR RECORDED VIDEO


The DVR5100 remote client provides two methods for exporting video:

- **Live export:** Exporting video at the frame rate at which you are currently viewing the video (can be refreshing at a lower frame rate than it was viewed due to network bandwidth throttle).
- **Full export:** Exporting everything that is stored on the DVR5100 hard disk drive.

Live export is much faster but may not export all frames. Full export can take longer but ensures that everything recorded on the DVR5100 is exported to the remote client PC. Exported video is saved to the default export location as follows:

*C:\Program Files\Pelco\Endura\DVR5100 Remote Client\Export*

The default video format for exporting video is Pelco Video File (\*.pef). For more information about configuring these defaults, refer to *Setting Up Export and Snapshot Defaults* on page 90. The export icon that appears on the video pane is for live export. The icons in the Quick Search dialog box are for full export.

Use the Export Manager to track the progress of exported video clips by clicking the Export Manager icon  located in the lower-right corner of the screen. Refer to *Managing Exported Video* on page 53 for more information about using the Export Manager to monitor exported video clips.

## STARTING AN EXPORT PROCESS



1. Place the mouse pointer in the video pane until the video controls appear (refer to Figure 54).
2. Click Export . While the video is being exported, the Export button blinks blue alternating with green, the border of the video pane turns red, and the Workspace icon becomes a blinking Export icon.




Figure 54. Video Export in Progress

## STOPPING AN EXPORT PROCESS

1. Place the mouse pointer in the video pane until the video controls appear.
2. Click the blinking Export button .
3. The file is saved to your default Export location in the default video format.

For information about using the Endura Player to open and play back exported files, refer to *Working with the Endura Player* on page 107.

## EXPORTING RECORDED VIDEO DURING PLAYBACK

1. Place your mouse pointer in the video pane that is playing the recorded video clip until the video controls appear.
2. Click Export  to start exporting. While video is being exported, the Export button blinks yellow alternating with green, the border of the video pane turns red, and the Workspace icon is replaced by a blinking Export icon.
3. Use the fast-forward control until you reach an end time for the exported video clip, and then click Export again. This marks the end time for the exported video clip. You can use the Export Manager to track the progress of the video clip.
4. To return to viewing live video, right-click in the video pane and select “Go to Live” from the Shortcut menu (refer to Figure 55).




**Figure 55.** Go to Live Command

For information about using the Endura Player to open and play back exported files, refer to *Working with the Endura Player* on page 107.

## EXPORTING ALL VIDEO FRAMES

You can also export a video clip from a search result obtained through a Quick or Enhanced Search.

1. Position your mouse pointer on the video clip (the color bar or search result) you would like to export.
2. Click Export Video . The Export dialog box opens (refer to Figure 56).

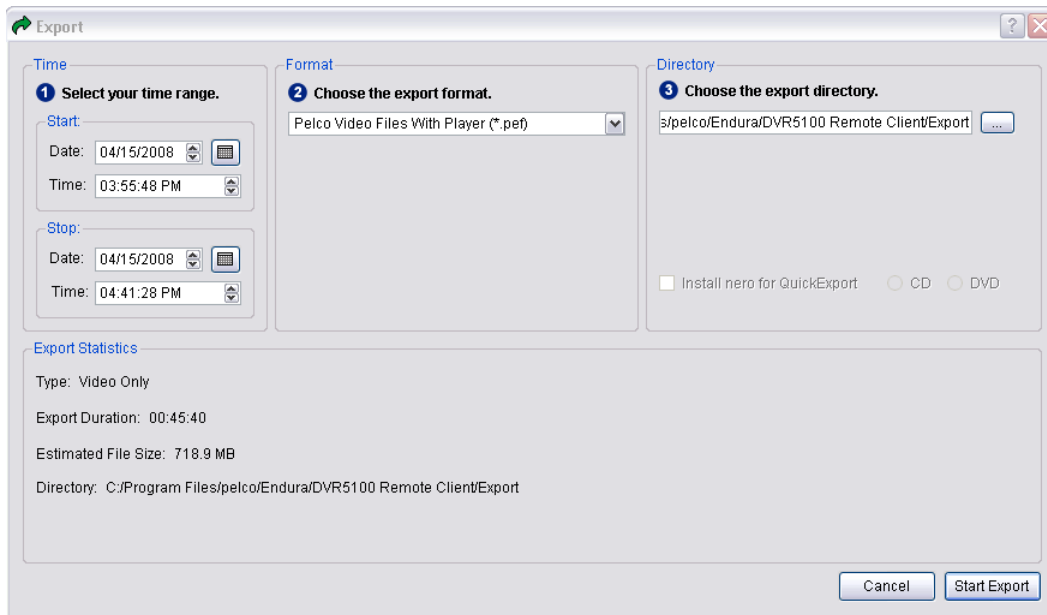


Figure 56. Export Dialog Box

3. Edit the export settings (if needed) of the clip you want to export:
  - Start and stop date/time.
  - Export format (the default is Pelco Video File (\*.pef).
  - Directory location (the default is *C:\Program Files\Pelco\Endura\GUI\Export* on the Endura workstation hard drive).
  - "Include the Endura Player with export?" (the default is to include the Endura Player when exporting video as a Pelco Video File).

To change the default export settings, go to the Users tab of the System Setup screen. Refer to *Managing Users* on page 88 for additional information.

4. Review the Export Statistics to be sure the selected video clip is not too large for the intended destination.


**NOTE:** If you change the date/time range or export format, the duration and estimated file size automatically update.

5. Click Start Export to export the clip. The video clip is sent to the Export Manager and is exported in the background while you continue with other tasks. To track the progress of the video, open the Export Manager. Refer to *Managing Exported Video* on page 53 for additional information. Click Cancel to terminate the export.

Refer to *Working with the Endura Player* on page 107 for information on using the Endura Player to open and play back exported files.

## CAPTURING AND EXPORTING SNAPSHOTS

To capture a snapshot of live video or recorded video being played back:

1. Position your mouse in the video pane displaying the video you want to capture. The video controls appear at the bottom of the pane.
2. Click Snapshot  (refer to Figure 57). A Snapshot icon appears momentarily in the upper-left corner to confirm that the snapshot is saved.
3. The file is saved to your default Snapshot location in your default file format.







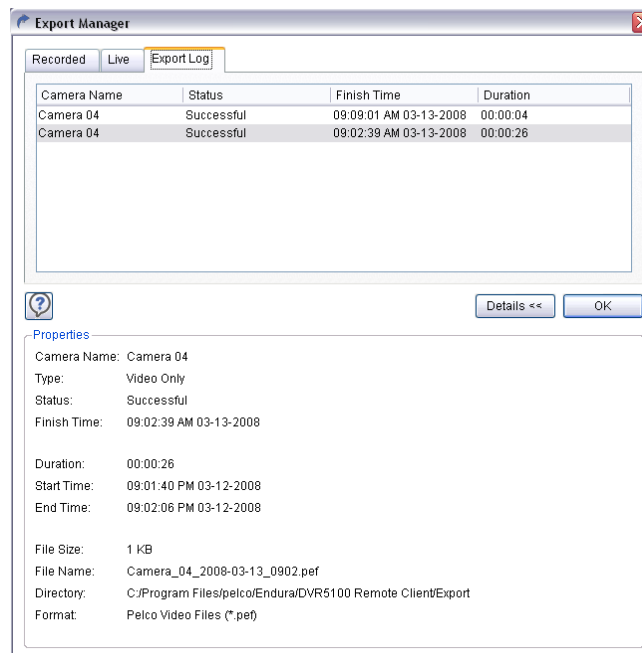
**Figure 57. Capturing a Snapshot**

## MANAGING EXPORTED VIDEO

You can export several video clips at the same time while simultaneously monitoring live video or performing other functions with the DVR5100 remote client. Use the Export Manager screen to display lists of recorded or live video that you are exporting (refer to Figure 58). From this screen, you can track the progress of each video clip, cancel an individual clip being exported, or cancel all clips from being exported. You can also stop the live video export while it is in progress by clicking the Stop button on the Live tab of the Export Manager screen.

To access the Export Manager screen:

1. Do one of the following:
  - From the DVR5100 remote client menu, click Tools > Export Manager .
  - Use the keyboard shortcut (Ctrl + Alt + E).
  - In the status bar at the bottom of the Main Application window, click Export Manager .



**Figure 58. Export Manager Screen**

2. To review information about exported video clips, click the following tabs:
  - **Recorded:** Contains a list of recorded video that is being exported to the local hard disk. Only recorded video that is in the process of downloading appears here. After the export process is completed, the video appears on the Export Log tab.
  - **Live:** Contains a list of live video being exported to the local hard disk. Only live video that is in the process of being downloaded appears here. After the export process is completed, the video appears on the Export Log tab.
  - **Export Log:** Contains a list of live or recorded video that is already exported. Video clips are listed here only after the export process is completed.
3. To review details about each video clip, select an item in the list, and then click the Details button. The following details are displayed for each video type:
  - **Camera Name:** The name or identification of the camera from which the video was captured or is being captured.
  - **Status:** The current status of the transmission. For example, Exporting, Successful, Canceled, and so forth.
  - **Request Time:** The time at which you began exporting the video. This time does not change unless you cancel the export and start it again.
  - **Duration or Current Duration:** The length of the exported video.
    - Duration appears on the Recorded tab. Expressed in hours, minutes and seconds, this number will vary from the actual length of the recorded video if you export less than the entire segment.
    - Current Duration appears on the Live tab. This number changes while the export of the live video continues. After it is stopped, this number reflects the actual duration of the live video that you exported.
4. To view additional details about the exported video, click the Details button on each tab. This information varies depending on whether you are reviewing the details of recorded or live video.

# Working with System Logs


The DVR5100 automatically records system and alarm events in a searchable database. Logged items are as follows (refer to Table A):

**Table A.** Logged System and Alarm Events

Logged Main Events	Logged Sub Events
User login/logout times/dates	—
Alarms cleared, acknowledged, and snoozed, including:	<ul style="list-style-type: none"><li>• Dates/times</li><li>• User responding</li><li>• Comments</li></ul>
Notes added manually by user	—
Device activity (on line/off line)	—
Errors/exceptions and warnings	—
Database structure failure	—
Device errors or failure	<ul style="list-style-type: none"><li>• Hard drive status:<ul style="list-style-type: none"><li>– On line/off line</li><li>– Failing/failed</li><li>– Out of space</li></ul></li><li>• System test</li><li>• System status/performance monitor</li><li>• Power supply status:<ul style="list-style-type: none"><li>– On line/off line</li><li>– Failing/failed</li></ul></li><li>• Universal Power Supply (UPS) status:<ul style="list-style-type: none"><li>– On line/off line</li><li>– Failing/failed</li></ul></li><li>• System improperly shut down</li><li>• System restarted</li><li>• System restored/recovered</li><li>• Video loss</li><li>• Shock and vibration errors</li><li>• Over temperature errors</li></ul>
Device errors or failure	—
Other information needed to sustain an accurate audit trail of an incident	—

Given the proper permissions, you may view the system log, and search, print, or export it to disk.

## VIEWING THE SYSTEM LOG

1. Click “Display system log”  to open the System Log screen, and then click Search Log (refer to Figure 59). A list of logged events appears. The Filter box indicates whether searching filters are currently turned on or off.
2. Click a column heading to sort the log by that item.
3. Click and drag the bar to the right of the column heading to expand or narrow the log data column.

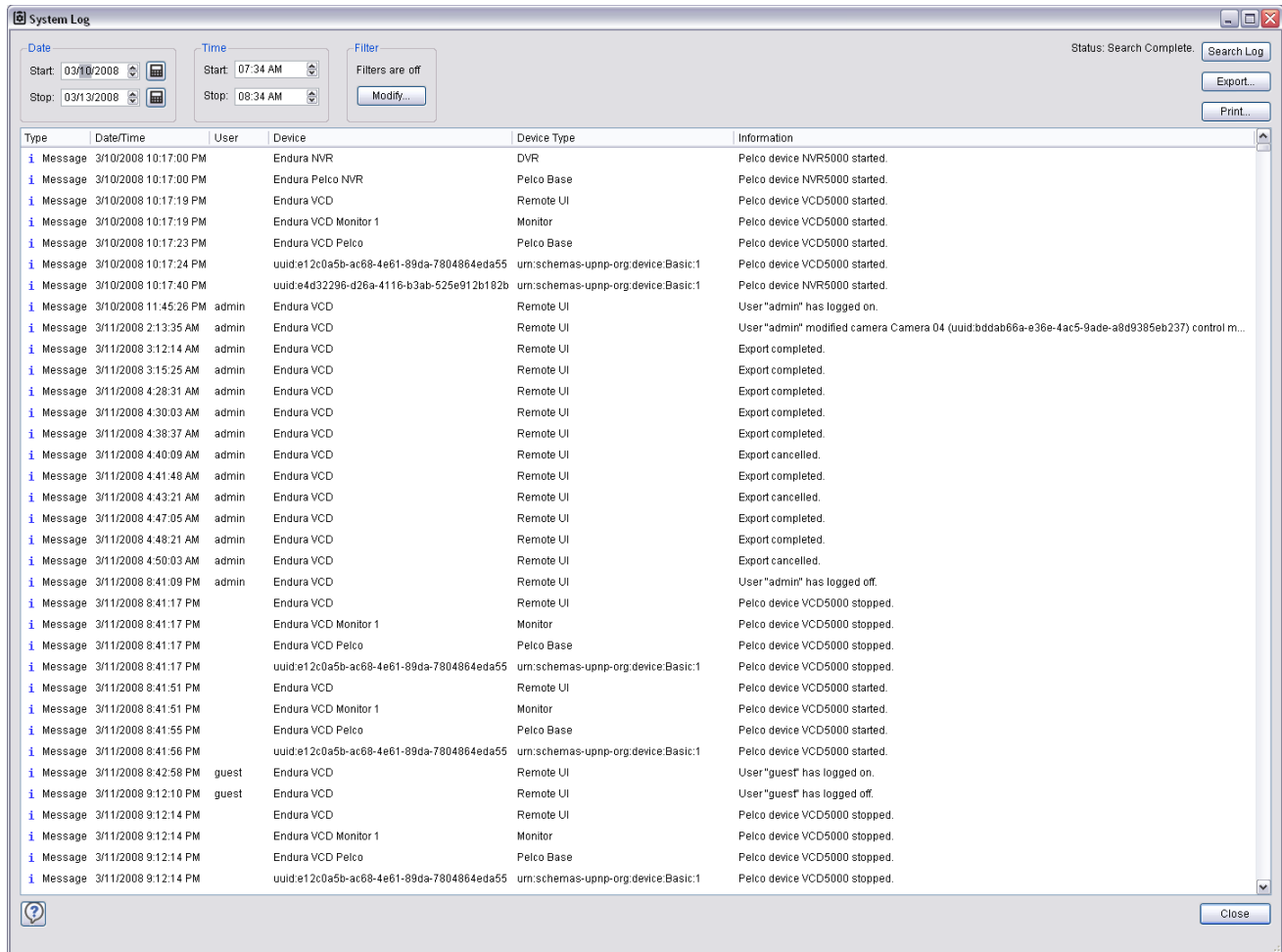



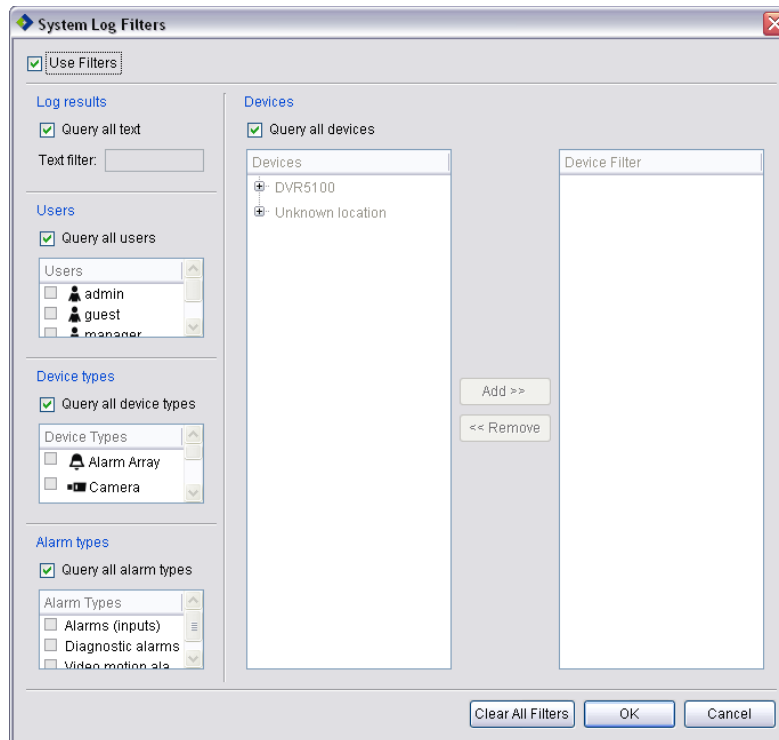
Figure 59. System Log Dialog Box

## SEARCHING THE SYSTEM LOG

1. Select the start and stop dates, using one of three options:
  - Click Calendar , and then select a date to set the start date for your system log search.
  - Click in a date field, delete the current date, and then type the date you want to use for the start of your search.
  - Click the month field, then use the up and down control to scroll through the numbered months (1–12) until you reach the desired month for the start of your search. Repeat the same process for setting the date and the year.
2. Select the start and stop times using one of two options:
  - Click in a time field, delete the current time, and then type the time you want to use for the start and end of your search.
  - Click the hour field, then use the up and down arrows to scroll through the numbered hours (1–12) until you reach the hour you want to use for the start and end of your search. Repeat the same process for setting the minutes, the seconds, and AM or PM.
3. Click Search Log.

To query the logs by other filters:

1. Click “Display system log” to open the System Log screen.
2. Click the Modify button. The System Log Filters screen appears.



**Figure 60.** Filters for a System Log Search

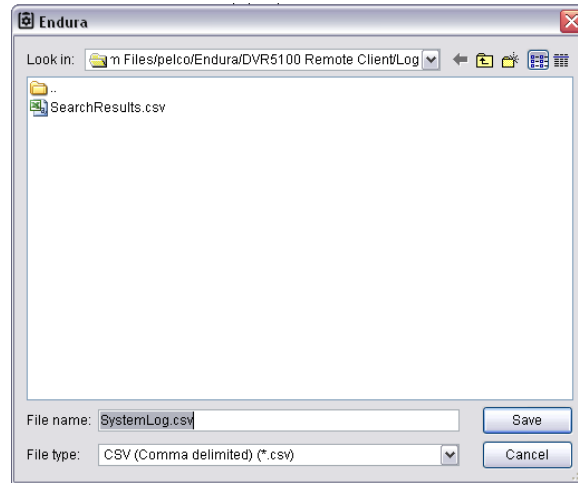
3. The default setting is to search the log for all text, users, device types, alarm types, and devices. To restrict your search results, click the appropriate check box to clear the “Query all” setting.
4. Filtering by text is especially useful for locating manually added log entries when you know the word or phrase used to describe an incident. To add text filters, click the “Query all text” check box to clear it, and then enter the text you want to locate in your search.
5. Filtering by users is useful for investigating the activities of an individual user or users. To add user filters, click the “Query all users” check box to clear it, and then click the check boxes beside the user names you want to include in your search.
6. Filtering by device type is useful for checking on the performance of a particular category of device, such as cameras or alarms. To add device type filters, click the “Query all device types” check box to clear it, and then click the check box for each device type you want to include in your search.
7. Filtering by alarms is useful for verifying the status of alarm-triggering events. By default, events triggered by all alarm types are included in the log. To add specific alarm type filters, click the “Query all alarm types” check box to clear it, and then click the check box for each alarm type you want to include in your search. Options are available for input alarms, diagnostic messages, and video motion alarms.
8. Filtering by device is useful for checking on the performance of a specific device.
  - a. To add device filters, select the devices in the left-hand panel you want to add, and then click Add >>.
  - b. To remove device filters, select the devices in the right-hand panel you want to remove, and then click << Remove.
9. When you have finished modifying the filters, click OK to close the System Log Filters screen.
10. Click Search log on the System Log screen.

## PRINTING A SYSTEM LOG

1. Apply the desired log filters.
2. Click “Print in the System Log,” select your printer, and then click Print.

## EXPORTING A SYSTEM LOG


1. Click Export.
2. Select the location where you would like to save the log file.
3. Click OK.

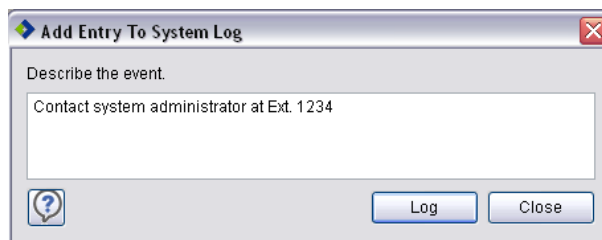


**Figure 61.** Export System Log Screen

## ADDING MANUAL LOG ENTRIES

The DVR5100 remote client allows you to enter notes in the system log manually. Each entry is stamped with the date, time, and your user name and can be correlated to recorded video through a Quick or Enhanced Search. Possible uses for manual logging include recording phone calls, logging customer contacts, and noting unusual behavior for review by a supervisor. This information complements the information captured automatically through the system’s automatic logging function.

1. Go to Tools > Add to System Log , or press Ctrl+A. The Add Entry To System Log dialog box appears (refer to Figure 62).
2. Enter your comments in the log, and then click Log.
3. The screen remains open until you click Close. This allows you to record multiple entries without having to reopen the screen. It also allows you to leave the screen open while you monitor video.




**Figure 62.** Adding an Entry to the System Log

# Setup Using the Remote Client

The DVR5100 Remote Client allows you to remotely configure and operate the DVR5100 server. The DVR5100 server supports up to three simultaneous DVR5100 remote client sessions. Prior to using the DVR5100 remote client to configure the unit, ensure that you have set the time, date, and network parameters.

## REMOTE CLIENT SETUP SCREEN

The DVR5100 remote client Setup screen provides access to all device and system configuration screens, recording schedules, and user permissions.

To access the Setup screen, click Setup , or use the keyboard shortcut (Ctrl+Shift+S). The Setup screen appears on top of the Main Application window (refer to Figure 63).

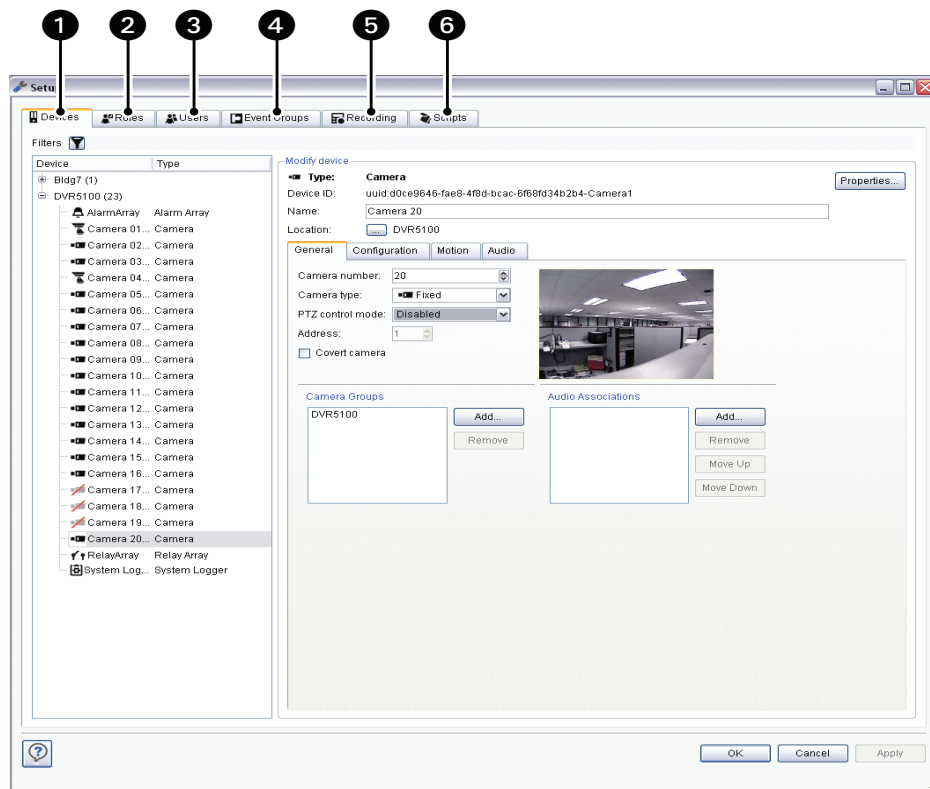


Figure 63. Setup Screen

- 1 Devices:** Configures all system devices, and assign locations and groups.
- 2 Roles:** Establishes permissions for accessing network devices and features within the remote client interface.
- 3 Users:** Creates user profiles and set preferences for language, alarm notifications, and exported file locations.
- 4 Event Groups:** Associates multiple alarm and motion events, allowing you to run a script (or scripts) when that group of events occurs.
- 5 Recording:** Activates recording of video from specific cameras at certain dates and times, or when certain events occur.
- 6 Scripts:** Accesses powerful, flexible programming of devices and system features, such as recording and displaying video, sending alarm notifications, and changing camera settings.

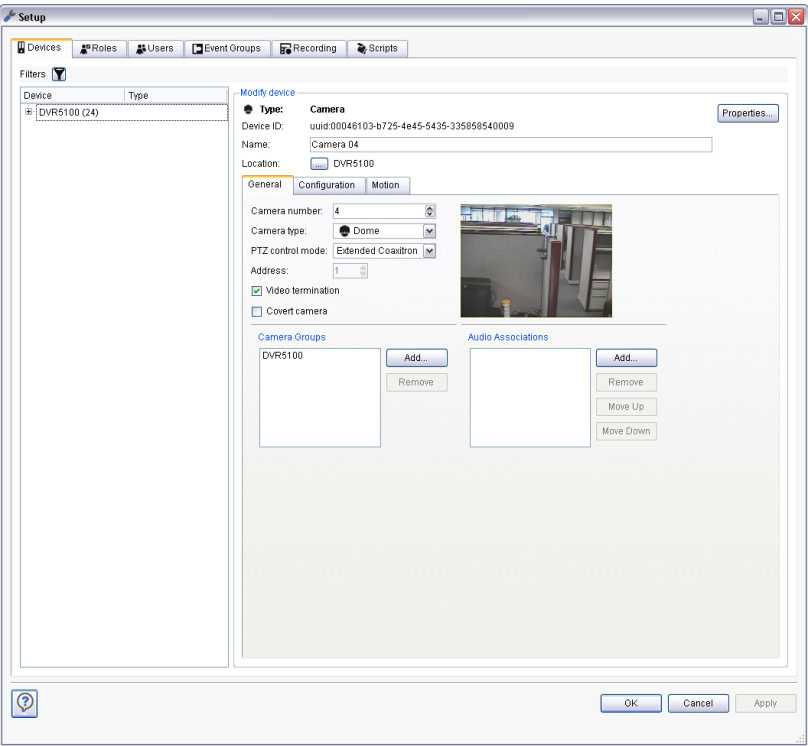
All Setup tabs may not be visible to every user. The system administrator assigns each user one or more roles. Each role has permission to access a particular set of devices, services, and interface features. Contact your system administrator if you require additional permissions.

# CONFIGURING DEVICES

You can configure the DVR5100 and its devices under the Devices tab in the Setup screen. The left pane displays alarms, cameras, the DVR5100, and relays. The right pane displays the currently selected device settings (located in the tree in the left pane).



You can only make changes to online cameras. If a camera is not currently on line, its icon appears with a red slash across it.

To access the Devices screen (if not already displayed), click Setup  , and then click Devices  (refer to refer to Figure 64).








**Figure 64.** Devices Screen

## Selecting a Device

1. Click Setup  , and then select Devices  .
2. Select a device. When you select a device from the left pane, the related settings appear in the right pane.

If you change a device's settings, and then select a different device before you click Apply, a dialog box appears asking if you want to save the changes. Click Yes to save the changes, or click No to cancel.

**Table G.** Device Buttons

Icon	Device Type
	AlarmArray
	Camera
	DVR
	Relay Array
	System Logger

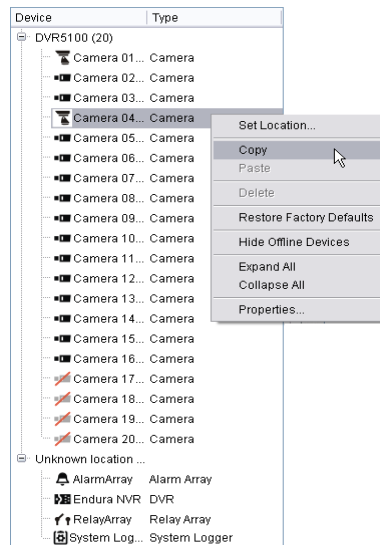
- To expand one portion of the device hierarchy, click the plus (+).
- To expand the entire hierarchy, right-click the device tree in the navigation pane, and then select Expand All from the Shortcut menu.
- To collapse one portion of the device hierarchy, click the minus (–).
- To collapse the entire hierarchy, right-click the device tree, and then select Collapse All from the Shortcut menu.



## Copying Device Settings

To copy and paste settings from one device to another:

1. Right-click the device you want to copy, and then select Copy from the Shortcut menu (refer to Figure 65).



**Figure 65.** Device Setup Shortcut Menu

2. Right-click the device from which you want to receive the copied settings, and then select Paste from the Shortcut menu. A confirmation message appears.
3. Click Yes to confirm the copy, or click No to cancel.

## Restoring Device Defaults

To restore a device's factory-set defaults:


1. Right-click a device in the Device tree, and then select Restore Factory Defaults from the Shortcut menu. A confirmation message appears.
2. Click Yes to confirm the restoration, or click No to cancel.

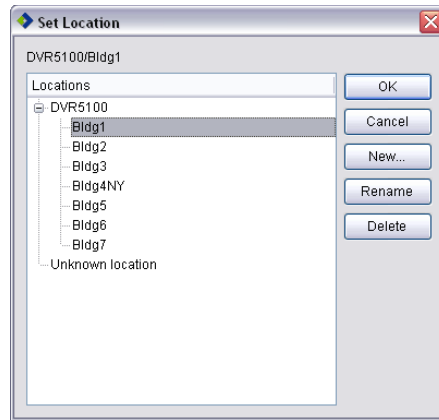
## Naming Devices

1. Click in the Name box.
2. Enter the name. The name must contain fewer than 100 characters and include only letters, numbers, or spaces (no special characters).
3. Click Apply.

## Assigning a Device Location

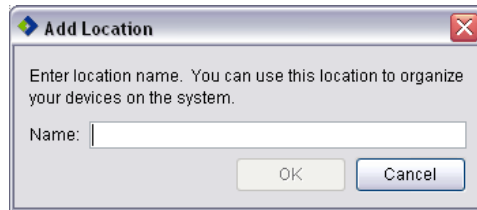
Cameras can be grouped into physical or logical groups to facilitate easier and more intuitive access. To create, change, or assign locations:

1. Click Location . The Set Location dialog box appears, displaying a hierarchical list of existing locations (refer to Figure 66).
2. Click the plus (+) to expose lower levels of the hierarchy or click the minus (–) to hide lower levels.



**Figure 66.** Selecting a Device Location

3. If the desired location does not exist, navigate to a place in the location hierarchy where you would like to add the new location, and then click New. The Add Location dialog box appears (refer to Figure 67).








**Figure 67.** Adding a Location

4. Enter a new location name, and then click OK. The new highlighted location appears in the hierarchy. You can also click Cancel to exit without adding a new location.
5. To delete a location, select the location name, and then click Delete.  
**NOTE:** If other devices have been assigned this location, this action deletes the location only for that device. If no other devices are assigned this location, clicking Delete removes the location entirely from the system.
6. To rename a location, right-click the name. You can also click Rename, and then enter the new name.
7. To rearrange the list of locations, click and drag a location name to a new position. A dialog box appears asking you to confirm the move. Click Yes to confirm, or click No to cancel.
8. Click OK to save your changes, or click Cancel to exit the dialog box without saving the changes.

# Working with Devices

The DVR5100 is designed for future expansion into a fully distributed virtual matrix. All attributes are designed to be virtual. Alarms, cameras, the DVR5100, and so forth, are treated as individual entities that make integration into a virtual matrix seamless.

**Table H. Devices**

Device	Icon	Description
Alarm Array		An external device input to the DVR5100, indicating an active alarm event. The DVR5100 can be configured to respond in different ways to a minor, normal, major, or critical alarm event. For information about alarms, refer to <i>Alarm Array</i> on page 75.
Camera		An external video device. This device provides input to the DVR5100. Depending on the model, a camera can provide various operating features. Typically, a camera provides the following features: <ul style="list-style-type: none"><li>• Video input</li><li>• Bi-directional communication with the DVR5100 for control and operation</li></ul>
DVR		System settings that allow you to configure EnduraStor™ and other system options. By default, EnduraStor is disabled.
Relay Array		An internal DVR5100 relay output. The DVR5100 provides up to four relays: two relays for a 4-channel DVR5100 and four relays for an 8-channel or a 16-channel DVR5100.
System Log Device		An internal device. The DVR5100 maintains a system log that provides an overview of daily system events. An entry is automatically written in the system log each time a user logs on to the system. Other entries track alarms that occur throughout the day, diagnostic information about devices, and so forth. You can also make manual entries in the system log from different locations in the system. A system log can become quite large if it is not managed properly. You can control how much information is written in the log, how often information is deleted from the log, and where the log is stored.

# CAMERAS

The DVR5100 system accommodates fixed cameras that transmit NTSC/PAL signals and positioning systems that use several protocols. When selecting a protocol for a PTZ camera, consider whether or not you require bidirectional communication between the cameras and the DVR5100. Pelco D protocol supports bi-directional communication, which allows the DVR5100 and cameras to communicate with each other. This is useful if you want to log the occurrence of alarm events about the camera in the system log, obtain positioning information about the camera (such as its elevation or azimuth), and review additional information, such as the camera's current magnification.

To access the Devices screen, click the camera you want to configure. The right panel displays the current settings for that camera (refer to Figure 68).

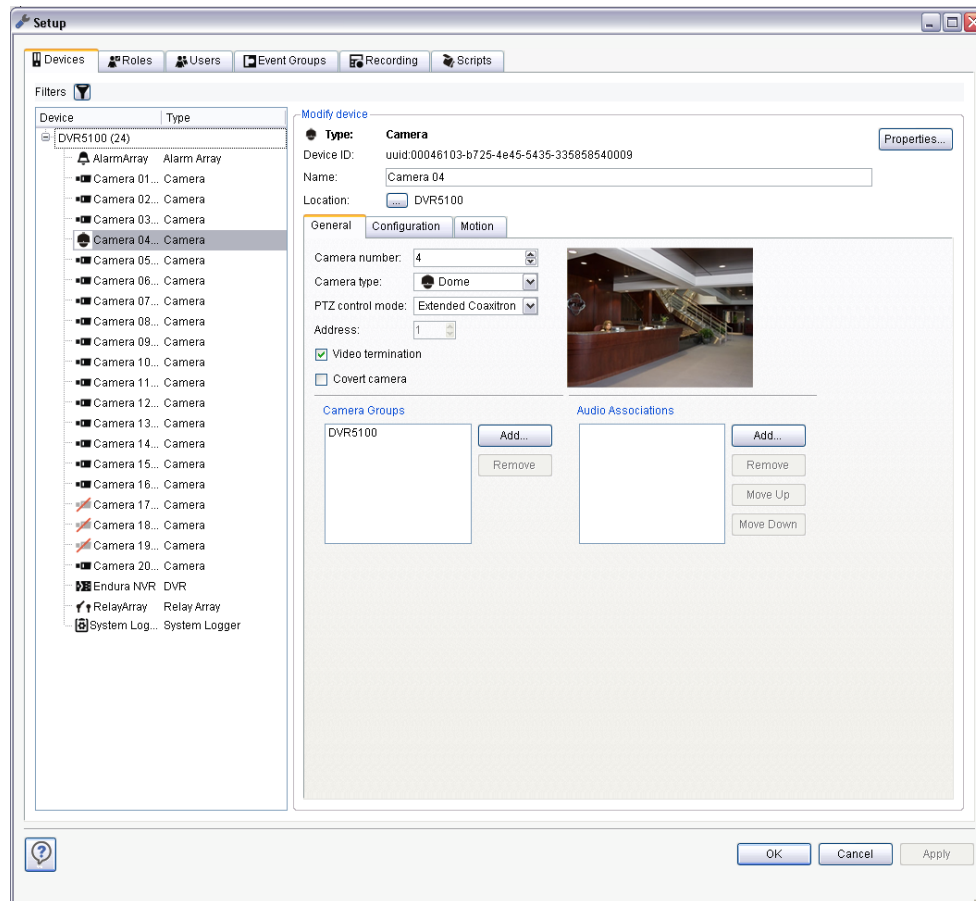


Figure 68. Camera Setup: General Tab

## WORKING WITH THE GENERAL TAB

### Modifying the Camera Number

In the "Camera number" box, type or select a number. The DVR5100 does not allow duplicate camera numbers.

### Selecting the Camera Type

In the "Camera type" box, select a camera type. The DVR5100 does not allow duplicate camera numbers.

### Selecting PTZ Protocol

In the PTZ Control Mode box, select the desired protocol. The options are: Disabled, Coaxitron, Extended Coaxitron, Protocol D, or Protocol P.

### Selecting the Camera Address

In the Address box, select an address

## Selecting Video Termination

Video termination lessens the effects of ghost images on the final device when several video devices are connected together in a chain.

Select "Video termination" to enable, or clear "Video termination" to disable.

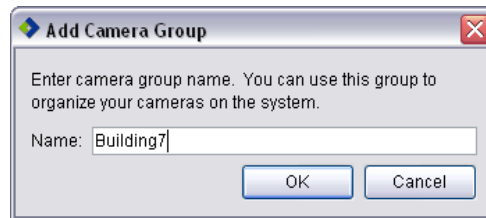
## Operating a Camera in Covert Mode

The video of a camera operating in covert mode does not display. For a camera to display video, covert mode must be disabled.

Select or clear the "Covert camera" check box to enable or disable covert mode.

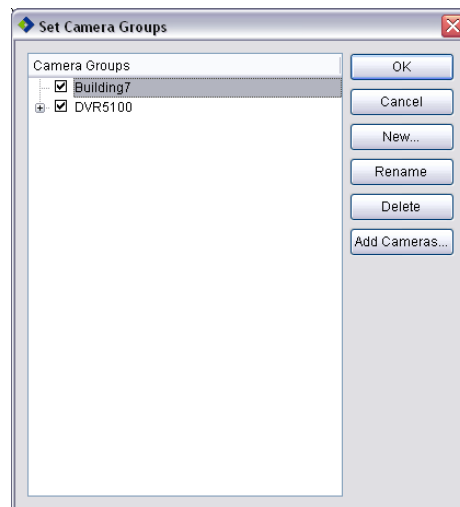
## Creating a Camera Group

1. In the Camera Groups selection box, click Add. The Set Camera Groups dialog box opens. By default, no camera groups are configured and the Camera Groups list is empty.
2. Click New. The Add Camera Group dialog box opens (refer to Figure 69).



**Figure 69.** Add Camera Group Dialog Box

3. Enter a camera group name.
4. Click OK. The name of the camera group is added to the Set Camera Groups dialog box list. The check box for the new entry is automatically selected (refer to Figure 70).

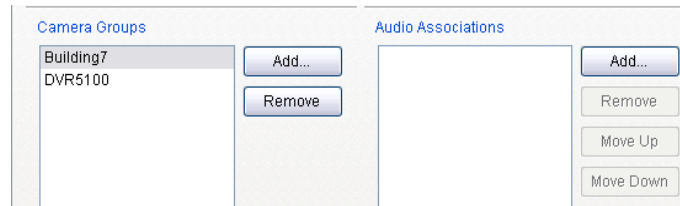


**Figure 70.** Set Camera Groups Dialog Box

5. Click OK. The entry is saved and the dialog box closes.

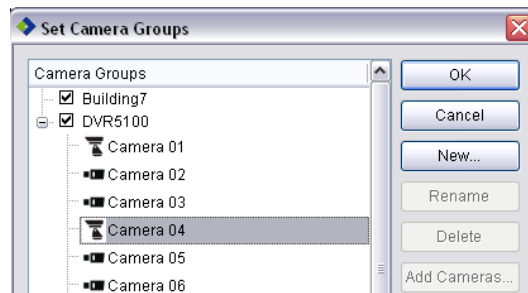
## Adding Cameras to a Camera Group

1. In the Camera Groups selection box, select a camera group to which you want to add a camera (refer to Figure 71).



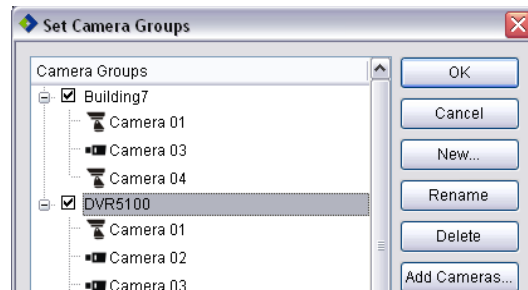
**Figure 71.** Camera Group Selection Box

2. Click Add. The Set Camera Groups dialog box opens (refer to Figure 72). The check box for the camera group is selected.



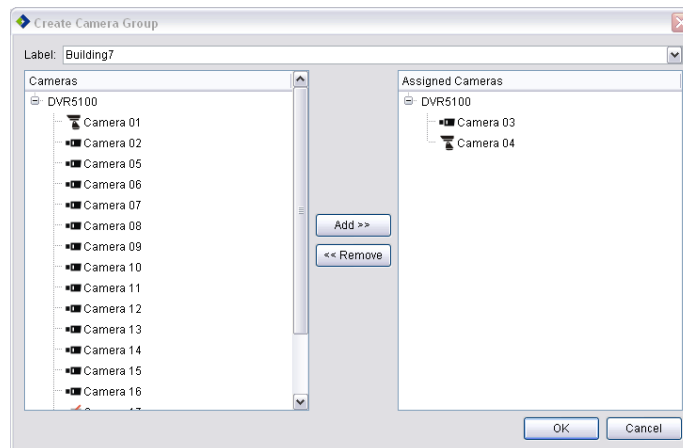
**Figure 72.** Set Camera Groups Dialog Box

3. Click the camera group. The name of the camera group is selected (refer to Figure 73).



**Figure 73.** Selecting a Camera Group

4. Click "Add Cameras..." The Create Camera Group dialog box opens (refer to Figure 74). The location name is displayed in the Cameras pane. The camera for which the camera group is created is automatically listed in the Assigned Cameras pane.



**Figure 74. Create Camera Group Dialog Box**

5. To add more cameras to the camera group:
  - a. In the Cameras pane, click a camera.
  - b. Click Add >>. The selected camera moves from the Cameras pane to the Assigned Cameras pane.
  - c. Repeat steps 5a and 5b for additional cameras.

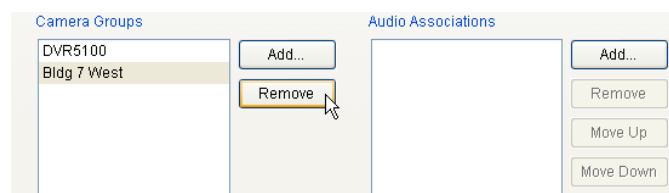
**NOTE:** To remove cameras from the group, select the camera from the right panel, and then click Remove.

  - d. Click OK. The Pelco dialog box opens, prompting you to save the new group.
  - e. Click Yes to save the new group. The new group is saved and the Set Camera Groups dialog is displayed.
6. In the Set Camera Groups dialog box, click OK.

## Deleting a Camera Group

**NOTE:** Once a camera group is deleted, it cannot be restored. The DVR5100 does not alert you that you are about to delete a camera group. Apply or OK confirms the deletion; Cancel cancels the action and closes the Setup screen.

1. In the Camera Groups selection box, click to select the camera group you want to delete (refer to Figure 75).



**Figure 75. Deleting a Camera Group**

2. Click Remove. The camera group is removed from the Camera Groups list.

## Modifying a Camera Group Name

1. In the Camera Groups selection box, click a camera group, and then click Add. The Set Camera Groups dialog box opens.
2. In the Set Camera Groups dialog box, click the camera group, and then click Rename. The camera group name is highlighted.
3. Modify the camera group name, and then click OK. The DVR5100 remote client dialog box opens and displays a message prompting you to confirm the modification.
4. Click Yes to rename the camera group, or click No to cancel the change.

## Setting Up Audio Associations

The DVR5100 supports up to four audio inputs. Each respective audio input is assigned to a certain camera input. Not all DVR5100 camera inputs are assigned an audio input. In this case, connect cameras that support audio to the DVR5100 channels that are assigned an audio input.

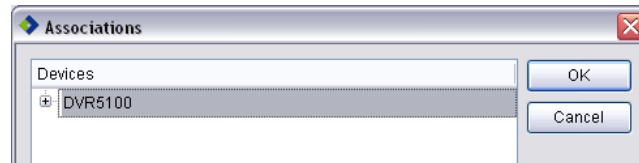
If there are multiple cameras monitoring an area and only a few of the cameras support audio feeds, the DVR5100 allows you to associate, or link, several cameras together. Any camera that does not support audio can be associated with cameras that do support audio, so that the audio feed from one camera is included with video recorded from the other cameras.

The audio inputs are as follows:

- Two audio inputs are provided for a 4- or 8-channel DVR:
  - Audio input 1 is assigned to camera input 1.
  - Audio input 2 is assigned to camera input 2.
- Four audio inputs are provided for a 16-channel DVR:
  - Audio input 1 is assigned to camera input 1.
  - Audio input 2 is assigned to camera input 2.
  - Audio input 3 is assigned to camera input 9.
  - Audio input 4 is assigned to camera input 10.

To set up an audio association:

1. Verify that the target camera is configured for audio service. Audio service must be enabled to set up audio associations (refer to *Enabling Audio Service* on page 74).
2. Expand the device tree, and then select the camera you want to associate with a camera assigned an audio input.
3. To associate the selected camera with a camera that supports an audio feed, do the following:
  - a. In the Audio Associations area, click Add. The Associations dialog box opens (refer to Figure 76).



**Figure 76. Associations Dialog Box**

- b. Expand the device tree. Cameras that have enabled audio service are displayed.
- c. Click the check box of the camera to which you want to associate the current camera (refer to Figure 77).



**Figure 77. Camera Association**

- d. Click OK. The name of the associated camera to which the current camera is linked is displayed in the Audio Associations pane.



## WORKING WITH THE CONFIGURATION TAB

The Configuration tab allows you to set up the noise filter levels and video settings for each camera (refer to Figure 78).

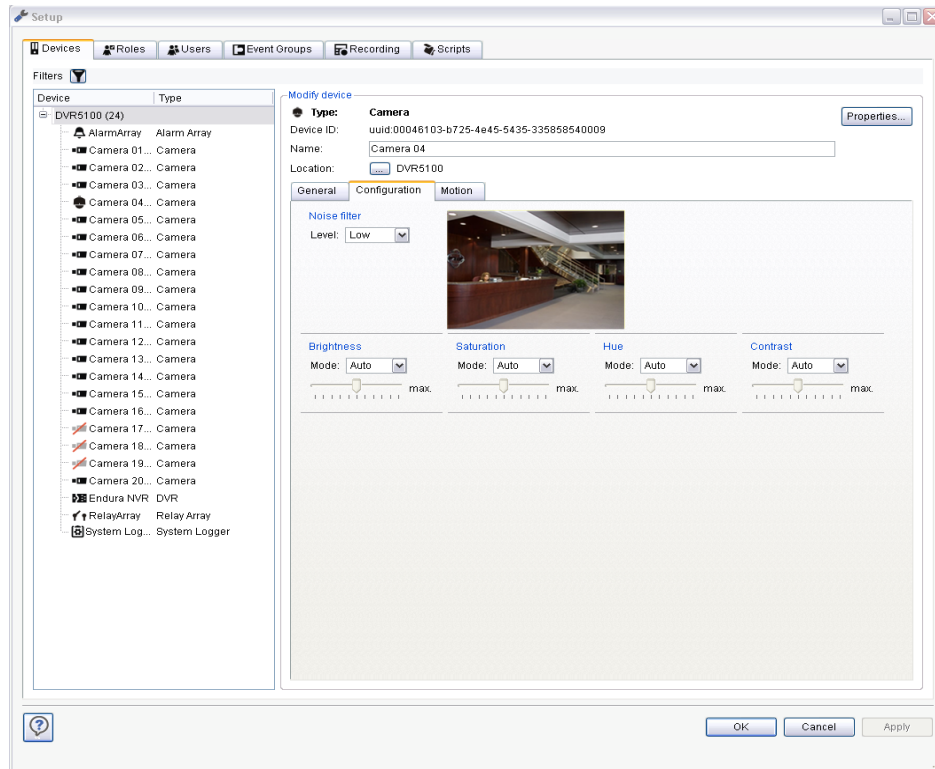


Figure 78. Configuration Screen

### Setting the Noise Filter

The noise filter removes high frequency noise from the camera to improve the quality of the encoded video signal. Video noise is generally manifested as snow, graininess, ghost images, or picture static. Noise is imposed on the video signal by external sources such as power lines, electric motors, fluorescent lamps, and so forth. The DVR5100 Remote Client allows you to select between three filter levels, to apply the filter that provides the best video picture for your application.

Select one of the following noise filter levels:

- **Low:** Minimum filtration and reduction of high-frequency noise.
- **Medium:** Medium filtration and reduction of high-frequency noise.
- **High:** Maximum filtration and reduction of high-frequency noise.

### Configuring the Camera Settings

For each camera setting, select Auto (default) or Manual. If Manual is selected, adjust the setting's value (Brightness, Saturation, Hue, and Contrast). Use the view window to preview the changes before you save them.

## WORKING WITH THE MOTION TAB

The DVR5100 Remote Client allows you to set up to three motion detection zones per camera. These zones may be any size and shape, and they may be set to high or low sensitivity to motion. Motion settings may be used to trigger alarms of varying severity (minor, normal, major, or critical) that can be included in recording schedules. From the video pane, you can show or hide detected motion. You can also search for motion events using Quick or Enhanced Search. Motion must be enabled before the Motion tab is displayed.

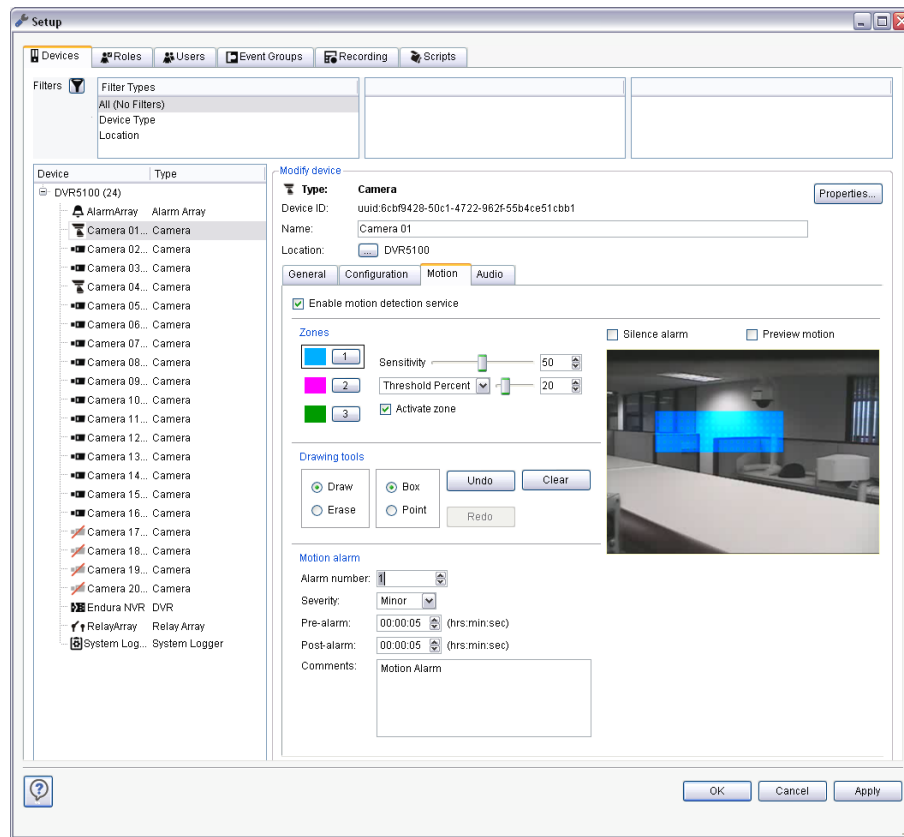


Figure 79. Motion Screen

## Understanding the Motion Threshold

The DVR5100 Remote Client allows you to specify the motion threshold value in number of blocks. Table I describes the terminology and options for setting the sensitivity and threshold values.

Table I. Motion Sensitivity and Threshold

Option	Description
Sensitivity	Determines how sensitive each individual block is to motion detected within it (1–100; default is 50).
Threshold	<p>Determines the number of blocks or percentage of blocks that must detect motion to trigger an alarm. The motion zone can be up to 1350 blocks.</p> <ul style="list-style-type: none"> <li><b>Threshold Percent:</b> Allows you to specify the threshold level in percentage. By default, this value is set to 20 percent. The Threshold Percent range is automatically adjusted between 2–100 percent, depending on the number of blocks used to define the motion zone.</li> <li><b>Threshold Blocks:</b> Allows you to specify the threshold level in number of blocks. By default, the minimum number of blocks is 2.</li> </ul>
Activate zone	Determines whether alarms will be triggered by motion in the defined zone. By default, this setting is not enabled.

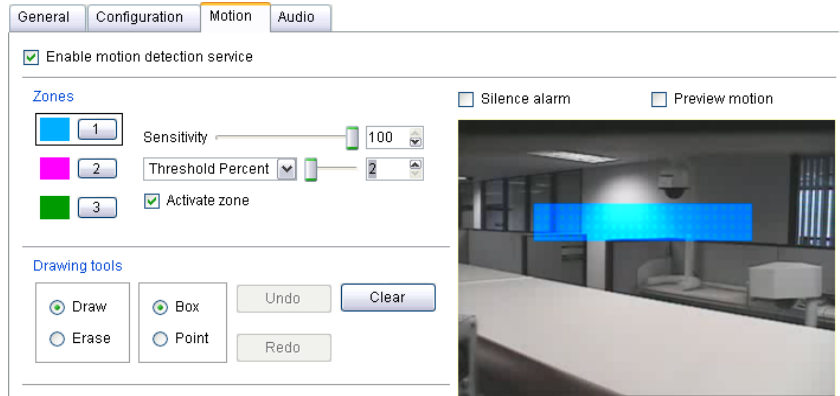
## Understanding the Threshold Percent

The Threshold Percent allows you to specify the number of blocks in a motion zone that must detect motion before a motion event can be initiated.

### Scenario 1: Motion Zone = 100 Blocks

For example, if the motion zone has 100 blocks (maximum setting), you can set the Threshold Percent option to 2 (minimum setting). In this case, the number of detection blocks in the motion zone can be as few as 2 (refer to Figure 80). You can adjust the threshold blocks from 2–100 blocks. These values are derived as follows:

$$\text{Number of Detection Blocks} = (\text{Zone Blocks} \times n\%) / 100 \text{ or } 100 \times 2 / 100 = 2$$



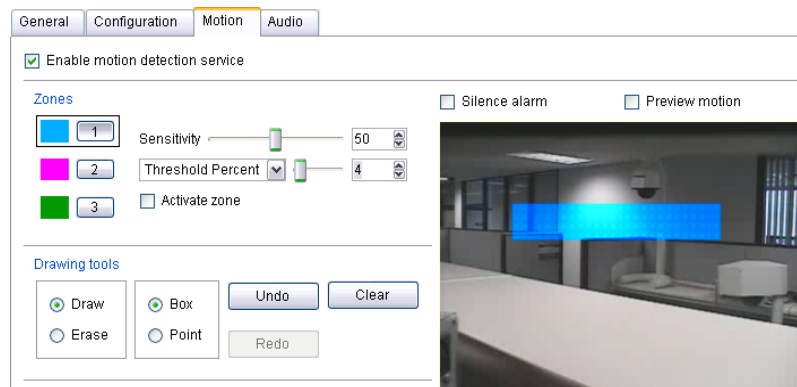
**Figure 80.** Motion Zone and Threshold Percent: Example 1

**NOTE:** Threshold Blocks cannot be set to a value less than 2. If you attempt to do so, the remote client will automatically readjust the value to 2.

### Scenario 2: Motion Zone = 50 Blocks

If the motion zone has 50 blocks and you attempt to set the Threshold Percent option to 2 percent, the remote client automatically readjusts this value to 4 percent (refer to Figure 81 on page 71).

$$\text{Number of Detection Blocks} = (\text{Zone Blocks} \times n\%) / 100 \text{ or } 50 \times 4 / 100 = 2$$



**Figure 81.** Motion Zone and Threshold Percent: Example 2

### Scenario 3: Small Motion Region = 16 Blocks; Large Motion Region = 56 Blocks

If multiple regions are defined in a motion zone, the DVR5100 Remote Client:

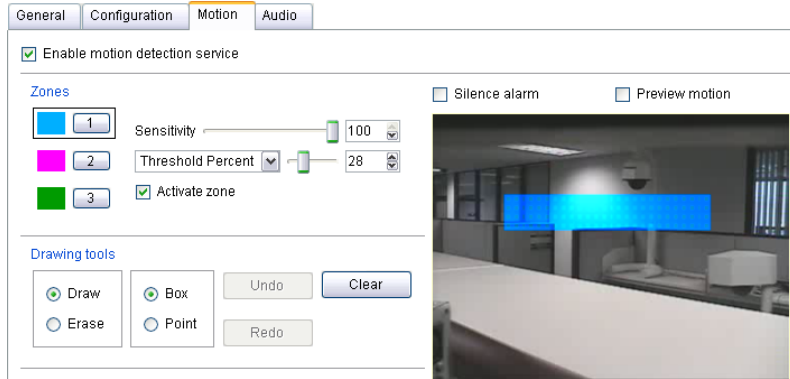
- Adds the blocks from each region to arrive at total blocks for the motion zone.
- Bases the threshold calculation on the total blocks.

For example, in Figure 82 on page 72, there are two regions: a larger region (56 blocks) and a smaller region (16 blocks) totaling 72 total blocks assigned to the motion zone. The Threshold Percent is set to 28. In this case, 20 blocks ( $72 \text{ blocks} \times 28\% = 20$ ) must detect motion before a motion event is triggered.

The DVR5100 remote client views the multiple regions as one contiguous area.

- If motion occurred in 10 blocks of the smaller region and 10 blocks of the larger region, a motion event is triggered.
- If an activity occurred in all 16 blocks of the smaller region, a motion event would not be triggered. Based on the Threshold Percent setting of 28 percent, 20 blocks must detect motion before a motion event is triggered. In this case, the motion activity in the smaller region would go undetected.

In applications where you want to protect multiple regions with motion detection, it is suggested that you assign one zone to each region.



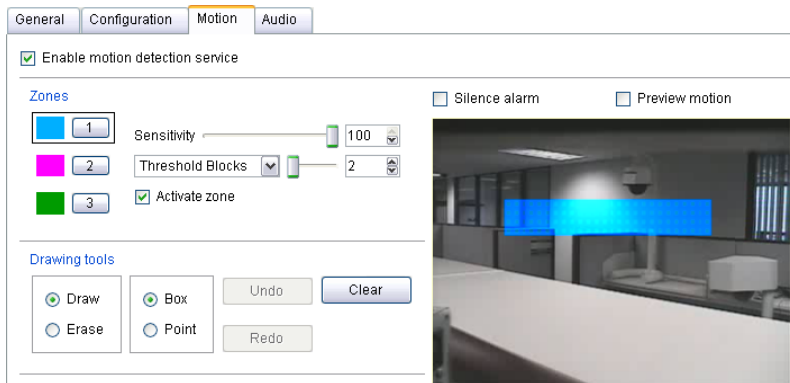
**Figure 82.** Motion Zone and Threshold Percent: Example 3

## Understanding the Threshold Blocks Feature

The Threshold Blocks feature allows you to specify the number of blocks in a motion zone that must detect motion before initiating a motion event.

*Scenario 1: Motion Zone = 100 Blocks*

For example, if the motion zone has 100 blocks (maximum setting), you can set the Threshold Blocks option to 2 (minimum setting). In this case, the number of detection blocks in the motion zone can be as few as 2 (refer to Figure 83). You can adjust the threshold blocks from 2–100 blocks. These values are derived as follows:

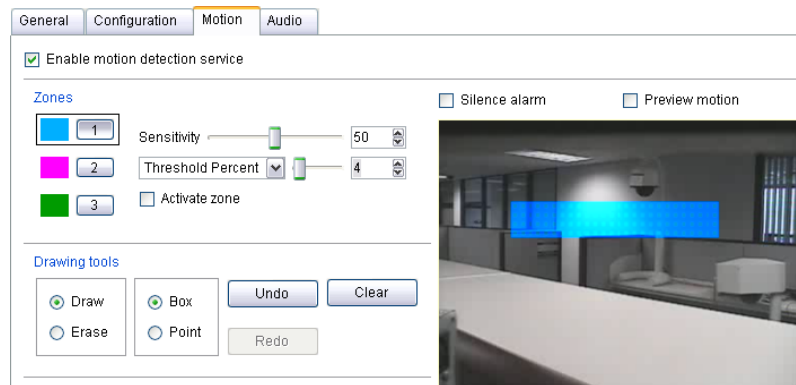


**Figure 83.** Motion Zone and Threshold Blocks: Example 1

**NOTE:** Threshold Blocks cannot be set to a value less than 2. If you attempt to do so, the remote client will automatically readjust the value to 2.

### Scenario 2: Motion Zone = 50 Blocks

If the motion zone has 50 blocks and you attempt to set the Threshold Percent option to 2 percent, the DVR5100 remote client automatically readjusts this value to 4 percent (refer to Figure 84).



**Figure 84.** Motion Zone and Threshold Blocks: Example 2

## Setting Up Motion Detection

Motion detection service must be enabled before the Motion tab is displayed in the Devices page.

1. Click the zone button you want to configure. The currently selected zone button changes to a lighter color. A colored motion grid (light blue, magenta, or green) appears as an overlay on the video pane, showing all the areas where motion will be detected. (If no motion zones have been set, this grid does not appear.)
2. Create the motion detection grid by selecting the Draw tool:
  - **Box:** Draws a box grid.
  - **Point:** Adds individual squares.
3. Edit the motion detection grid by selecting the Erase tool:
  - **Box:** Erases a box grid.
  - **Point:** Erases individual squares.
4. While drawing or erasing, you can use the Undo button to reverse your last actions one step at a time. Redo cancels the actions of the Undo button.
5. Edit the zone's motion settings (refer to Table I on page 70).
6. To preview the results of your motion settings, click Preview Motion. Light blue boxes appear wherever motion is detected in the camera's field of view. While Preview Motion is selected, you can edit the motion detection settings, but you cannot use the drawing tools to change the shape of the motion detection zone.
7. Click OK to confirm the motion settings. Click Cancel to exit without saving the change.
8. To confirm the settings and remain in the Setup screen, click Apply. To confirm the change and exit the Setup screen, click OK. To exit the Setup screen without saving the settings, click Cancel.

## Clearing Motion Detection Settings

Click Clear. All three motion zones are cleared.

## WORKING WITH THE AUDIO TAB

Cameras capable of audio display an Audio tab. If this tab does not appear, go to the camera's General tab and click the check box for "Enable audio service. After a few seconds, the Audio tab will appear. The audio tab contains read-only information about the selected camera's audio capabilities. For information about setting up audio associations, refer to *Setting Up Audio Associations* on page 68

## Enabling Audio Service

If a camera supports audio, the “Enable audio service option” tab appears.

To enable audio, select the “Enable audio service” check box (refer to Figure 85). The Audio screen appears. To disable audio, clear the “Enable audio service” check box.

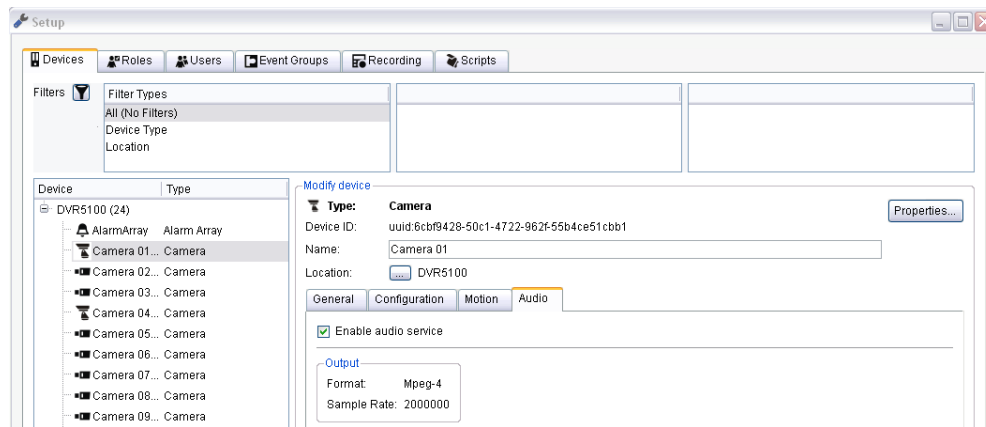



Figure 85. Enabling Audio

## ACCESSING DVR OPTIONS

Select DVR . The Contents panel displays the current settings for the DVR (refer to Figure 86).

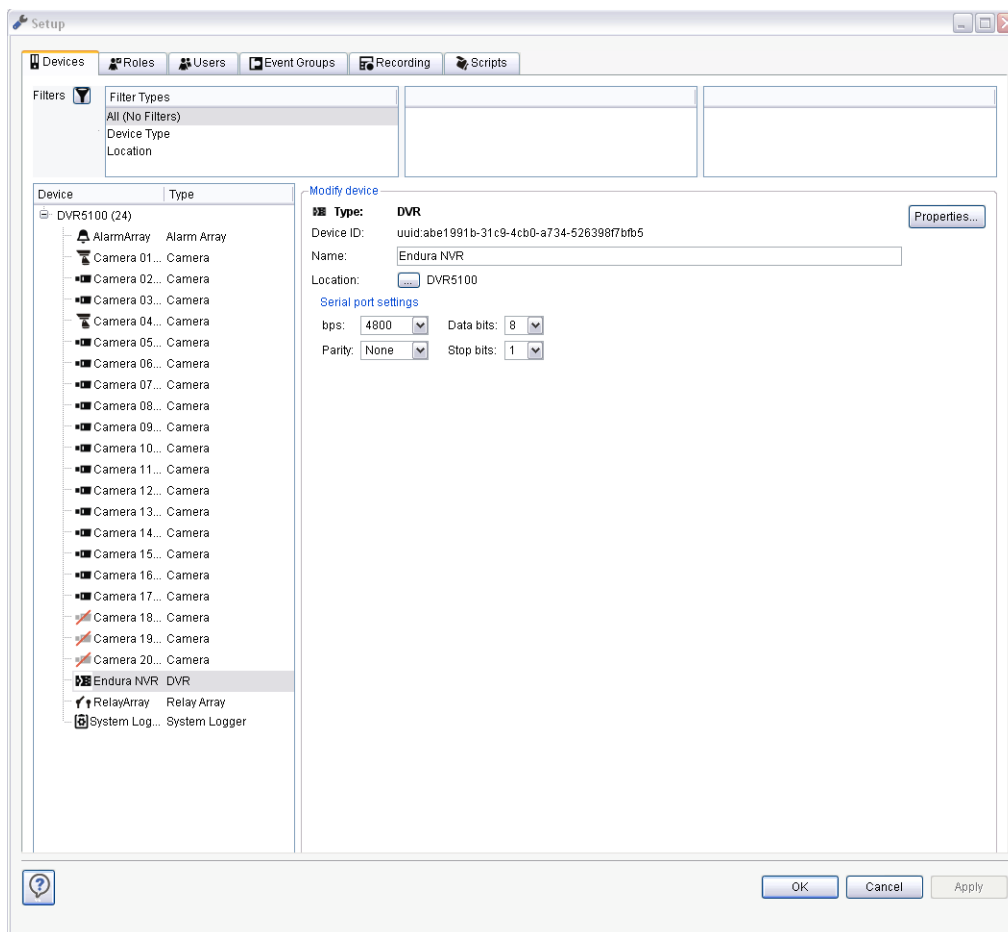



Figure 86. DVR Device Settings

## SPECIFYING THE DVR NAME AND LOCATION

The DVR allows you to create a user-friendly name to easily identify the DVR5100 device.

To modify the DVR device name:

1. Select DVR . The Contents panel updates to display the current settings for the DVR5100 device.
2. Assign a friendly name for the DVR in the Name box. By default, the name is Endura NVR.
3. Select the Location label, and then click Location. The Set Location dialog box opens.
4. Click Unknown Location, and then click New. The Add Location dialog box opens.
5. Enter a location name, and then click OK. The Location label displays the new location.

**NOTE:** For information on working with devices, refer to *Assigning a Device Location* on page 62.

## SETTING UP THE SERIAL PORT

Select the speed, number of data bits, parity, and number of stop bits.

## ALARM ARRAY

The DVR5100 Remote Client supports up to 16 alarm inputs to connect external signaling devices to the DVR5100, such as door contacts or motion detectors. One programmable alarm input is provided for each camera (video) input. The 4-channel DVR supports four alarm inputs and the 8-channel DVR supports eight alarm inputs. By default, the DVR5100 labels the group of external alarms as *AlarmArray*.


Once configured, an alarm input can initiate many different activities including triggering a relay device, sending an alert to a security office, and storing pre-alarm video in the DVR5100.

The DVR5100 supports two alarm configuration modes:

- **Supervised alarm mode:** When an alarm is configured as a supervised alarm, the DVR5100 maintains a constant electrical current through the alarm circuit (5.0 VDC, 10 kohms), including a 10-kohm resistor. If the resistance changes, due to an electrical short or a bypass, the voltage fluctuates from its normal state and the unit triggers an alarm. These alarms cannot be defeated if they are cut or bypassed, whether they are normally open or normally closed.
- **Unsupervised alarm mode:** When an alarm is configured as an unsupervised alarm, the DVR5100 triggers an alarm only when the normal alarm state (normally open or normally closed) changes. By default, the DVR5100 is set to operate in the unsupervised alarm mode.

**NOTE:** To monitor and respond to alarms, you must be assigned a role that includes access to service. Diagnostic messages are always visible, regardless of a user's access to alarms.

## ACCESSING ALARM ARRAY OPTIONS

Select AlarmArray . The right panel displays the current settings for the selected alarm (refer to Figure 87).

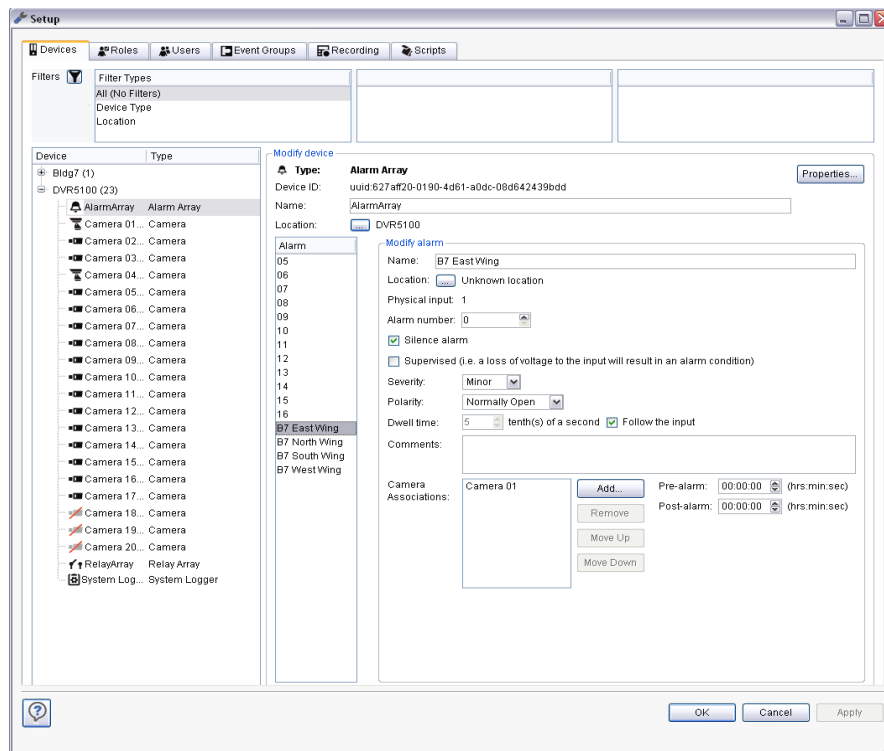


Figure 87. Alarm Configuration

## MODIFYING THE ALARM ARRAY DEVICE NAME

By default, the alarm array device is named AlarmArray. You can enter a user-friendly name for the alarm array device. Assigning a friendly name makes it easier to recognize individual devices on your network. The name must contain fewer than 100 characters and may include only letters, numbers, or spaces. No special characters are allowed.

In the “Modify device” Name box, assign a friendly name for the alarm device.

## SPECIFYING ALARM ARRAY LOCATION

The DVR5100 Remote Client allows you to enter a user-friendly name for the alarm array device location. For information about working with devices, refer to *Assigning a Device Location* on page 62.

1. Click Location. The Set Location dialog box opens.
2. Click Unknown Location.
3. Click New. The Add Location dialog box opens.
4. Enter a location name, and then click OK. The Location label displays the new location.

## CREATING AN ALARM INPUT NAME

1. Select AlarmArray .
2. To rename an alarm, select an alarm number (1–16) from the Alarm pane. The right panel displays the settings for the selected alarm input.

**NOTE:** The “Physical input” label displays a read-only that represents the number of the physical alarm input connected to the DVR5100. The physical input numbers are 1–16.

3. In the Name box, enter a user-friendly name for the alarm input.
4. In the “Alarm number” box, enter or select a number.



## **SPECIFYING AN ALARM INPUT LOCATION**

1. In the Alarm box, select an alarm number (1 through 16). The right panel displays the settings for the selected alarm input. The physical input label displays a read-only number that represents the number of the alarm physical input connection to the DVR5100. The physical input is numbered 1–16.
2. Click Location. The Set Location dialog box opens.
3. Click Unknown Location.
4. Click New. The Add Location dialog box opens.
5. Enter a location name, and then click OK.
6. Click OK in the Set Location dialog box. The Locations label displays the new location.

## **SETTING ALARM RESPONSE CHARACTERISTICS**

In the Alarm box, select an alarm number (1–16).

To set the alarm status:

1. Select the “Silence alarm” check box if you want to disable the alarm (the default is unchecked/enabled).
2. Select the “Supervised” check box if you want a loss of voltage to the input to trigger an alarm condition (the default is unchecked/unsupervised).
3. Select the alarm’s severity from the Severity box. The severity determines how alarms are announced and who receives the announcement: Minor, Normal (default), Major, and Critical.

## **SETTING AN ALARM INPUT POLARITY AND DWELL TIME**

1. In the Alarm list box, select an alarm number (1–16).
2. Select the alarm’s polarity from the Polarity box: normally open (default) or normally closed.
3. Set the dwell time. The alarm dwell time can be set from 5 tenths of a second to 1,000 tenths of a second ( $1000 \times 0.10 = 100$  seconds). The default value is 110 tenths of a second ( $110 \times 0.10 = 11$  seconds). Click the check box if you want to follow the input instead of setting a specific dwell time.
4. Write any comments about this alarm in the Comments box. Use this field to communicate actions you would like the operator to take if this alarm is triggered. You can view these comments in the Alarm Manager screen.

## RELAY ARRAY

A relay array is a grouping of relays that are associated with the same device in the DVR5100 network. These relays can be configured by selecting the relay array and then setting up the individual relays within the array. Relays work much like switches. When triggered, relays can activate external devices, such as sirens, light fixtures, and door locks. Each of these relays can be configured separately in the Devices screen (refer to Figure 88 on page 78).

One relay is provided for every four channels:

- One relay output is provided for a 4-channel DVR.
- Two relay outputs (One, two for channels 1 and 2, respectively) are provided for an 8-channel DVR.
- Four relay outputs (One, two for channels 1 and 2, respectively; three, four for channels 9 and 10, respectively) are provided for a 16-channel DVR.

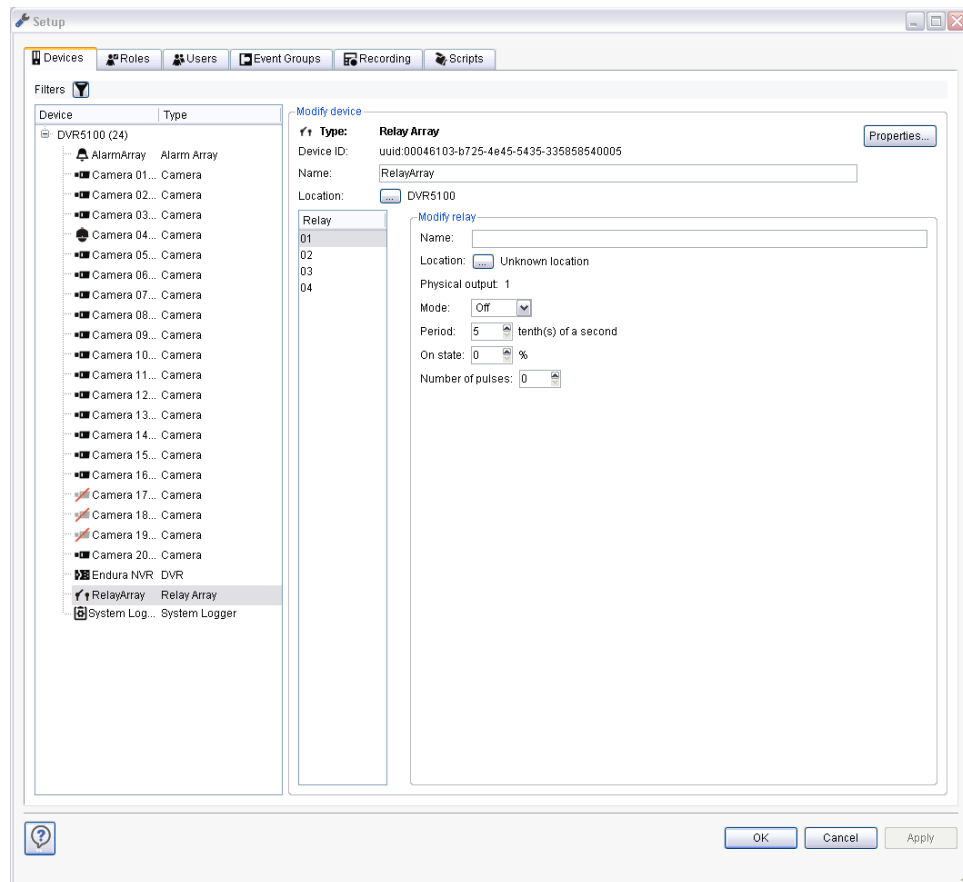



Figure 88. Relay Configuration

## ACCESSING RELAY ARRAY OPTIONS

Click RelayArray . The right panel displays the current settings for the selected relay.

## MODIFYING THE RELAY ARRAY DEVICE NAME

In the Name box, assign a friendly name for the relay device. RelayArray is the default.

## SPECIFYING A RELAY ARRAY LOCATION

1. Click Location. The Set Location dialog box opens.
2. Click Unknown Location.
3. Click New. The Add Location dialog box opens.
4. Enter a location name, and then click OK.
5. Click OK in the Set Location dialog box. The Locations label displays the new location.

## CREATING A RELAY OUTPUT NAME

By default, the relay outputs are numbered 1–4. You can enter a user-friendly name for a relay output. Assigning a friendly name makes it easier to recognize individual devices on your network. The name must contain fewer than 100 characters and may include only letters, numbers, or spaces. No special characters are allowed.

1. In the Relay box, select a relay number (1–4). The panel on the right updates to display the settings for the selected relay output.

**NOTE:** The physical input label displays a read-only that represents the number of the relay's physical output at the DVR5100 relay terminal box.

2. Under "Modify relay," type a user-friendly name for the relay output in the Name box.

## Specifying the Relay Output Location

1. Click the Location ellipsis.
2. Click New. The Add Location dialog box opens.
3. Enter a location name, and then click OK.
4. Click OK in the Set Location dialog box. The Location label displays the new location.

## SETTING RELAY OUTPUT CHARACTERISTICS

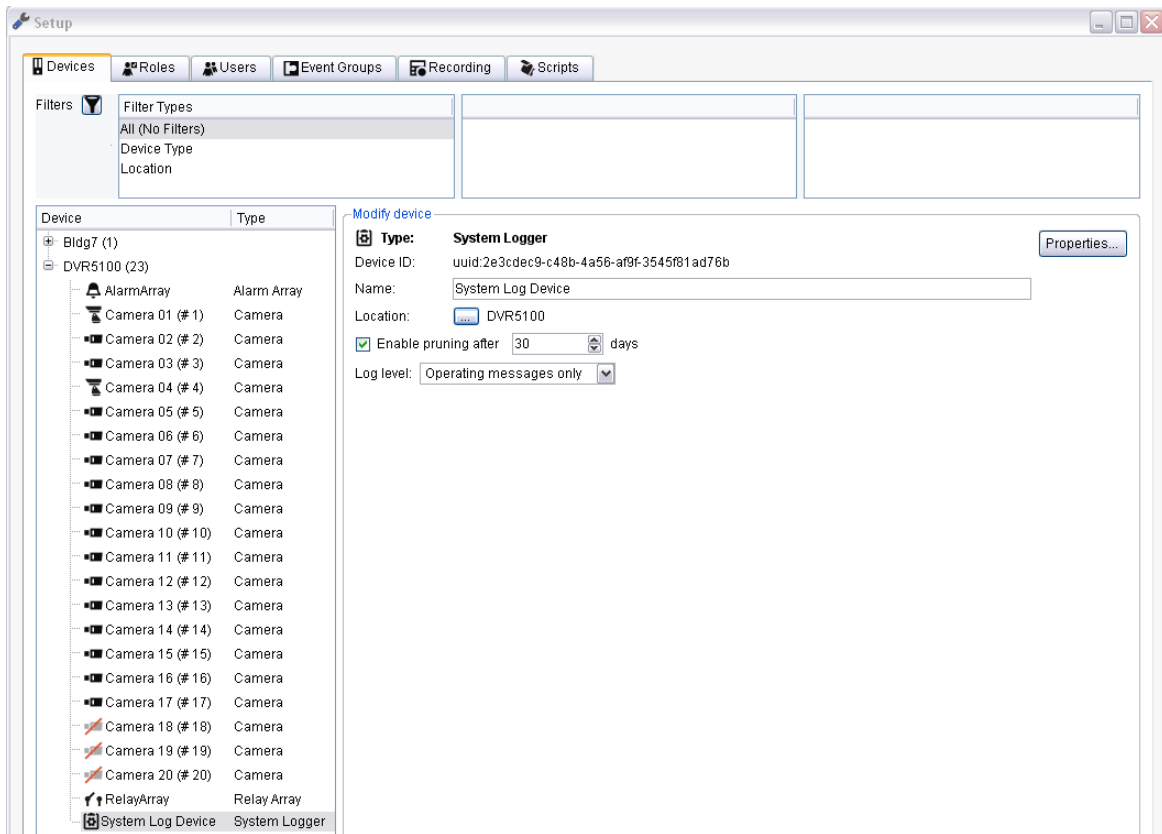
1. In the Relay box, select a relay number (1–4).
2. Select a mode in the Mode box: On (default), Off, Toggle, or Pulse. If you are using the pulse mode, set the relay period. This setting defines the total time in tenths of a second (5–1,000) for the relay control pulse (1 second is the default value).
3. Set the percentage of time during the defined period that the relay will be in the ON state. The default value is 50%.
4. Set the number of times (0–99) the relay will be pulsed (that is, placed in the ON state) during the defined period. The default value is 5.

## SYSTEM LOGGER

The DVR5100 maintains a system log that provides an overview of daily events in the system. Each time a user logs on to the system, an entry is automatically written in the system log. Other entries in the log track alarms that occur throughout the day, diagnostic information about devices, and so forth. You can also make manual entries in the system log from different locations in the system. A system log can become quite large if it is not managed properly. You can control how much information is written in the log, how often information is deleted from the log, and where the log is stored (refer to Figure 89 on page 80).

## ACCESSING THE SYSTEM LOGGER OPTIONS

Select System Log Device . The right panel displays the current settings for that device.



**Figure 89. System Logger**

## MODIFYING THE SYSTEM LOGGER DEVICE NAME

1. Select System Log Device . The right panel displays the current settings for that device.
2. Enter a name in the Name box.

## SETTING THE PRUNING PERIOD

Pruning means that entries are deleted from the log after a configured length of time. By default, pruning is enabled after 30 days. Select the pruning period in days in the “Enable pruning after” box.

## SELECTING THE LOG LEVEL

Select the log level in the Log Level box (“All messages”, “Operating messages only”, and “Debugging messages only”).

# Managing Roles

A role is a set of permissions that determines which devices, services, and features a user can access. Users can be assigned multiple roles. The DVR5100 Remote Client comes with four default roles, but allows you to create an unlimited number of roles (refer to Figure 90).

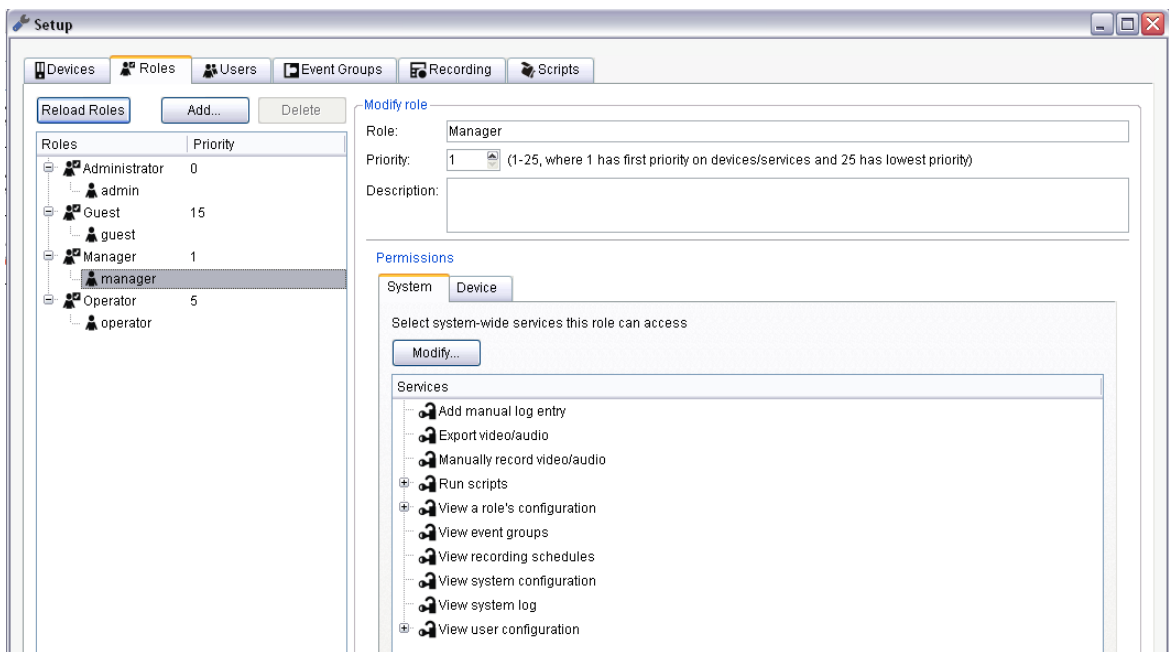


Figure 90. Setup: Roles

## USING A DEFAULT ROLE

The DVR5100 Remote Client comes with four preconfigured roles. You can use these roles, edit them to create your own roles, or create new roles. Since each role has access to different system features, you can assign each user to one or more roles.

Table J. Default Roles and Access Levels

Default User Roles	Maximum Level of Access
Administrator	Includes all Manager functions and permissions to update software and configure System, Devices, Roles, Users, and Schedules.
Manager	Includes all Operator functions and permissions to search and play back video/audio; lock and unlock video; export video and audio; add, modify, and delete scripts; view all setup information; and search, print, and export logs.
Operator	Includes permissions to control lens and positioning; access camera menus; run scripts; respond to alarms; manually record, view, and select cameras.
Guest	Includes permissions to view and select cameras.

## ADMINISTRATOR

The Administrator role provides full permission to access and modify all DVR5100 remote client features, and to configure and operate the DVR5100 (refer to Table K).

Table K. Administrator Role Default Settings (Sheet 1 of 2)

Option Label	Default Value
Role	Administrator
Priority	0 (zero)
Description	N/A

**Table K. Administrator Role Default Settings (Sheet 2 of 2)**

Option Label	Default Value
System Permissions: Services	All
Device Permissions: Services	All

## MANAGER

The Manager role includes permissions to monitor live video and audio, reposition PTZ cameras, respond to alarms, run scripts, activate relays, search for video, play back video, lock clips, capture snapshots, and export and view all of the Setup windows (refer to Table L).

**Table L. Manager Role Default Settings**

Option Label	Default Value
Role	manager
Priority	1
Description	N/A
System Permissions: Services	<ul style="list-style-type: none"> <li>Add manual log entry</li> <li>Export video/audio</li> <li>Manually record video/audio</li> <li>Run scripts</li> <li>View a role's configuration</li> <li>View event groups</li> <li>View recording schedules</li> <li>View system configuration</li> <li>View system log</li> <li>View user configuration</li> </ul>
Device Permissions: Services	<ul style="list-style-type: none"> <li>Access camera menu, priority 2</li> <li>Activate relays, priority 2</li> <li>Monitor and respond to alarms, priority 2</li> <li>Monitor audio, priority 2</li> <li>Monitor live video, priority 2</li> <li>Pan, tilt, and zoom (PTZ), priority 2</li> <li>Search and play back video, priority 2</li> <li>View alarm configuration, priority 2</li> <li>View audio configuration, priority 2</li> <li>View diagnostic information, priority 2</li> <li>View DVR configuration, priority 2</li> <li>View monitor configuration, priority 2</li> <li>View motion configuration, priority 2</li> <li>View Pelco device configuration, priority 2</li> <li>View relay configuration, priority 2</li> <li>View software version information, priority 2</li> <li>View system log configuring, priority 2</li> </ul>
<b>Included items:</b> Specific devices that you want to include with this role's set of permissions.	
<b>Excluded items:</b> Specific devices that you want to exclude from this role's set of permissions.	

## OPERATOR

The Operator role has permissions to monitor live video and audio, reposition PTZ cameras, respond to alarms, run scripts, activate relays, search for video, play it back, lock clips, and capture snapshots (refer to Table M).

**Table M. Operator Role Default Settings (Sheet 1 of 2)**

Option Label	Default Value
Role	Operator
Priority	5
Description	N/A

**Table M. Operator Role Default Settings (Sheet 2 of 2)**

Option Label	Default Value
System Permissions: Services	<ul style="list-style-type: none"> <li>• Add manual log entry</li> <li>• Manually record video/audio</li> <li>• Run scripts</li> </ul>
Device Permissions: Services	<ul style="list-style-type: none"> <li>• Access camera menu, priority 5</li> <li>• Activate relays, priority 5</li> <li>• Monitor and respond to alarms, priority 5</li> <li>• Monitor audio, priority 5</li> <li>• Monitor live video, priority 5</li> <li>• Pan, tilt, and zoom (PTZ), priority 5</li> <li>• Search and play back video, priority 5</li> </ul>
<b>Included items:</b> Specific devices that you want to include with this role's set of permissions.	
<b>Excluded items:</b> Specific devices that you want to exclude from this role's set of permissions.	

## GUEST

The guest role has minimal permissions and is allowed to monitor only live video and audio, change layouts, and reposition PTZ cameras (refer to Table N).

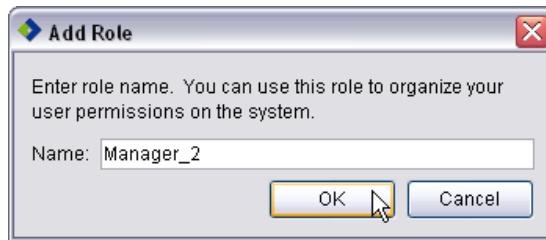
**Table N. Guest Role Default Settings**

Option Label	Default Value
Role	guest
Priority	15
Description	N/A
System Permissions: Services	N/A
Device Permissions: Services	<ul style="list-style-type: none"> <li>• Monitor audio, priority 5</li> <li>• Monitor live video, priority 5</li> <li>• Pan, tilt, and zoom (PTZ), priority 5</li> </ul>
<b>Included items:</b> Select devices this role can access. N/A	
<b>Excluded items:</b> Select devices you wish to explicitly exclude from this role's permissions. N/A	

## ADDING A NEW ROLE

The DVR5100 remote client allows you to create new roles and customize the permissions assigned to those roles. You can copy and paste permissions from one role to another. You can copy permissions from the manager, operator, and guest role and apply all or part of these permissions to a new role.

1. Click Roles .
2. Click Add. The Add Role dialog box opens (refer to Figure 91).



**Figure 91. Adding a Role**

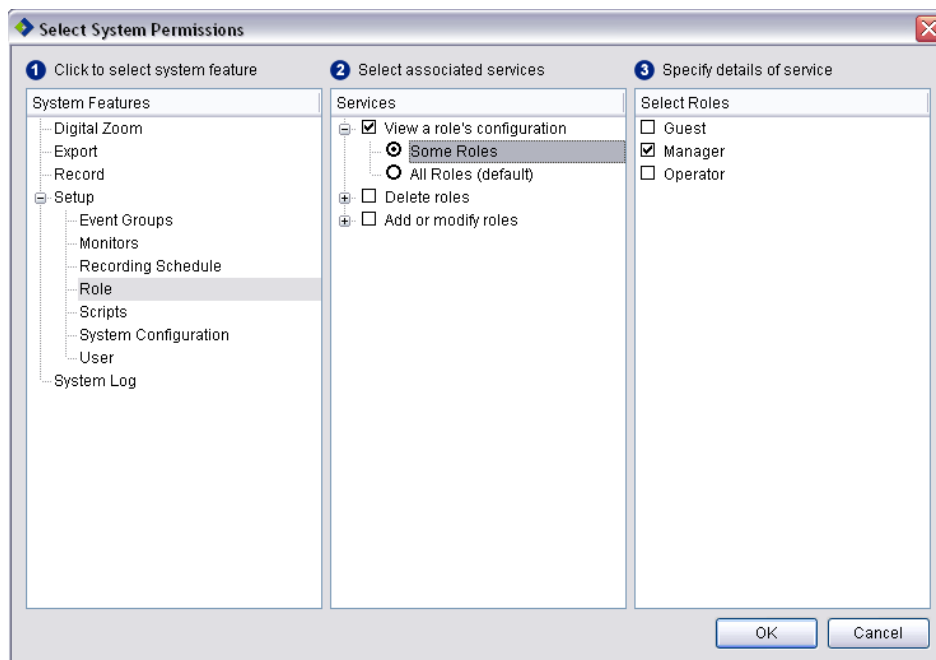
3. Enter the role name, and then click OK to confirm the addition.
4. Assign a priority (1–25) to the role. Priority 1 has the highest priority when more than one user is trying to access a device. Priority 25 has the lowest priority. The default priority setting is 1.
5. Enter a brief role description. (For example, “Day shift operator (from 8 a.m. to 5 p.m.) can view live video on all cameras, run searches and scripts, and play back video.”)
6. Assign permissions to the role.

## ASSIGNING PERMISSIONS

Giving a permission to a role is granting that role the right to access specific DVR5100 devices, services, and features. A new role does not have a permissions set. When you create a new role, you must assign the new role a set of permissions to access system features, services, and devices. You can also exclude specific devices from the permissions set.

### ASSIGNING PERMISSIONS TO SYSTEM FEATURES

1. Select the role you want to edit. Information about that role appears in the right pane of the Roles screen.
2. Click the System tab (if it is not already visible).
3. Click the Modify button on the System tab. The Select System Permissions dialog box opens (refer to Figure 92).



**Figure 92. Assigning System Permissions**

4. Click one of the system features you want to assign to this role. The related system services appear in the center pane.

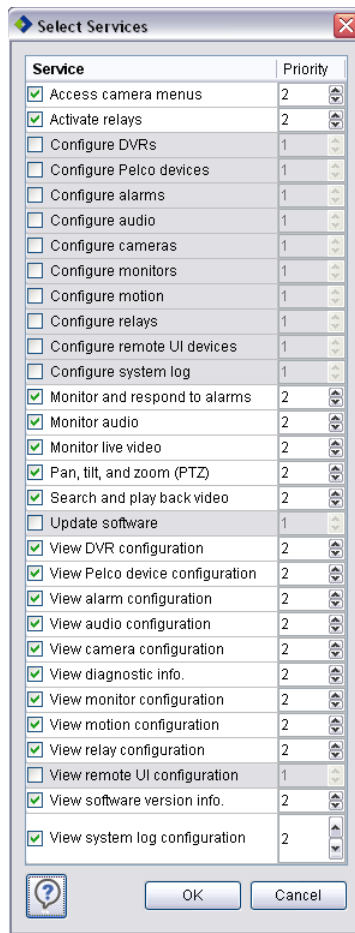


5. Click the check box of each service you want to allow this role to access.
6. To limit a role's access, do the following:
  - a. Click the plus (+) for one of the services.
  - b. Select the Some option.
  - c. Click the check boxes of the specific roles, users, or scripts to which you want to grant access.
  - d. To restore access to all roles, users, or scripts, select the All option.
7. Repeat steps 6 and 7 for each system feature you want to assign to the role.
8. Click OK to confirm the change and exit the dialog box, or click Cancel to exit the dialog box without saving the settings.

## SETTING SERVICE PERMISSIONS

To give a role permission to perform actions on the DVR5100 system:

1. Select the role you want to edit. Information about that role appears in the right pane of the Roles screen.
2. Click the Device tab (if it is not already selected).
3. Click the Modify button under Step 1 "Select device-specific services this role can access." The Select Services dialog box appears (refer to Figure 93).



**Figure 93. Selecting Services**

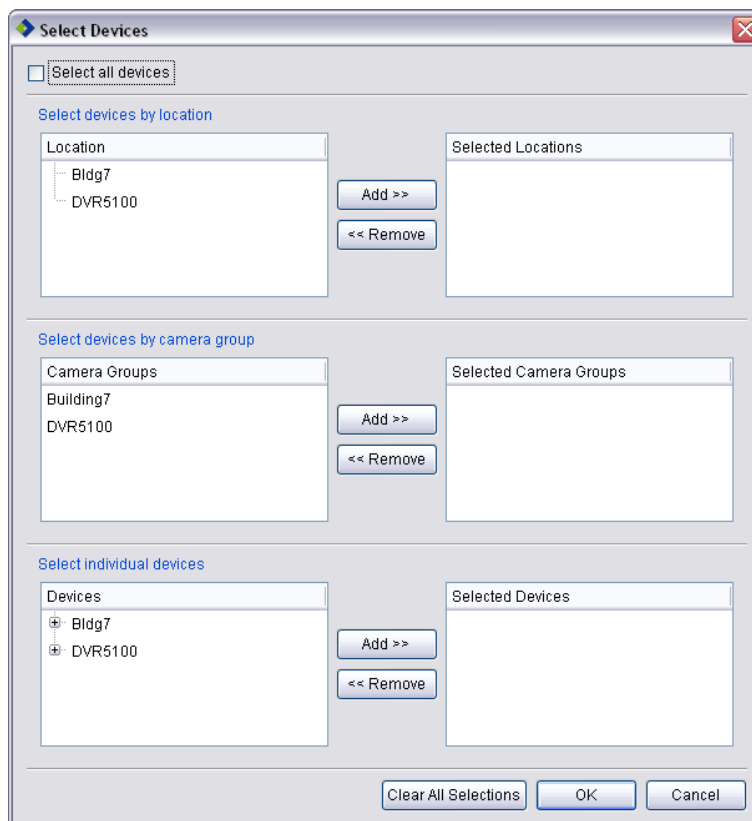
4. Click the check box of each service you want to add. The service list will vary depending upon the devices registered on your network.
5. Set the priority for each selected service if you want them to be different from the role's overall default priority.

## SETTING DEVICE PERMISSIONS

By default, users are given permission to all devices on the DVR5100 system.

To modify the devices to which a role has access:

1. Select the role you want to edit. Information about that role appears in the right pane of the Roles screen.
2. Click the Device tab in the Permissions pane.
3. Select a service from the Services list.
4. Click the Modify button under step 2, "Select devices this role can access." A dialog box appears showing only the devices that use the currently selected service (refer to Figure 94).



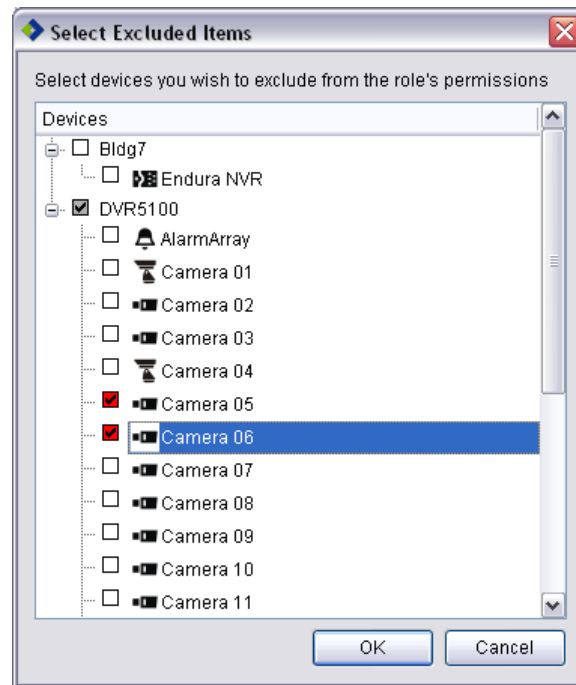
**Figure 94. Selecting Devices**

5. To limit a role's access to devices, clear the "Select all devices" check box at the top of the dialog box.
6. You can mix and match your device selections from all three screens. If you have not set up any locations or camera groups, you will need to use the "Select individual devices" area. To assign groups of devices (by location or camera group) or to select devices individually from a list:
  - a. Navigate to the desired item by clicking the plus (+) sign to expose lower levels of the hierarchy.
  - b. Click the locations you want to assign to the role, and then click Add >>. The location names appear in the Selected Locations column.
  - c. Click the camera groups you want to assign to the role, and then click Add >>. The group names appear in the Selected Camera Groups column.
  - d. Click the individual devices you want to assign to the role, and then click Add >>. The device names appear in the Selected Devices column.
7. To remove a location, camera group, or device from a role, click to select it from the appropriate "Selected" list, and then click << Remove.
8. Click OK to confirm the change and exit the dialog box, or click Cancel to exit the dialog box without saving the settings.
9. Select the sorting order from the "Sort by" list in the upper-right corner.

## EXCLUDING DEVICES AND SERVICES

You can provide a group of users access to all cameras on a system *except* one, such as the one monitoring the guard room. Or you can allow users to access all services on all cameras, but disallow the programming of a certain subset of cameras. You can also exclude specific devices from a role's permission set.

1. Select a service from the Services list.
2. Click the Modify button under step 3, "Select devices you wish to exclude from the role's permissions." A dialog box appears showing only the devices that use the currently selected service (refer to Figure 95).



**Figure 95.** Excluding Devices

3. Navigate to the desired device by clicking the plus (+) to expose lower levels of the hierarchy.
4. Click the check box to select the device you want to exclude. The check box turns red to indicate an excluded device.


## DELETING A ROLE

1. Select the role you want to delete.
2. Click Delete. A confirmation message appears.
3. Click Yes to confirm the deletion of the role, or click No to close the screen without deleting the role.

# Managing Users

Once roles are defined, the DVR5100 allows any number of user accounts to be established and assigned to these roles.

## ADDING NEW USERS

1. Click Users  to view a list of existing user names and their profiles.
2. Click Add. The Add User dialog box appears (refer to Figure 96).



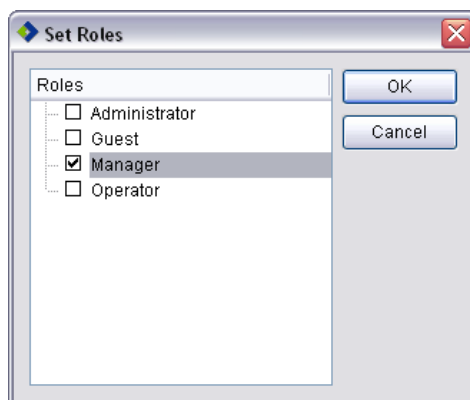
**Figure 96.** Adding a User

3. Enter the new user's name and password. Use letters, numbers, and spaces; do not use symbols or other special characters.
4. Click OK to confirm the entry and exit the dialog box.
5. Select the user's preferred language from the Language list; English is the default language. Other languages are available if a language pack is installed.
6. Enter the user's first name, last name, phone number, and e-mail address. This information is optional but may be useful in generating notifications and other scripted interactions.
7. Select the user's roles. Users must be assigned at least one role to access devices on the network. Users may be assigned more than one role. For information about assigning a role to a user, refer to *Assigning a Role to a User*.

**NOTE:** To create a new role or edit an existing role, click the Roles tab. For information about roles, refer to *Managing Roles* on page 81.

## ASSIGNING A ROLE TO A USER

1. Select a user from the User list. The options for the selected user appear in the right pane of the Users screen.
2. Under Roles, click Add. The Set Roles dialog box opens (refer to Figure 97).
3. Click the check box of the role(s) you want to assign. If you select the Administrator role, you cannot select additional roles.

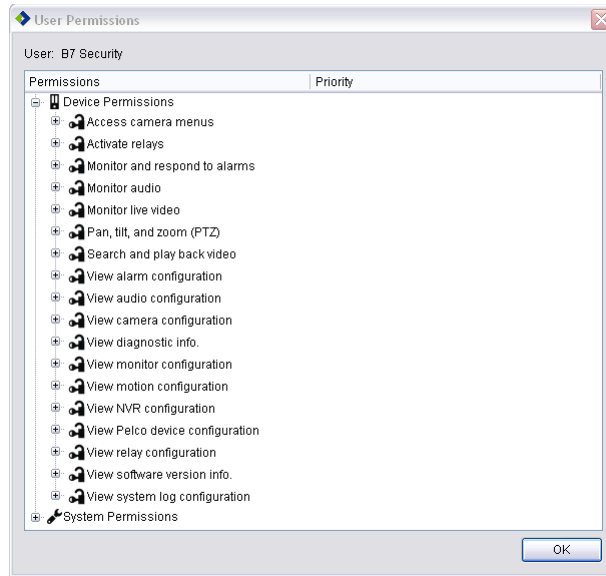


**Figure 97.** Adding a Role to a User

## VIEWING USER PERMISSIONS

The user's permission set consists of all the devices and services accessible to the role(s) assigned to the user.

1. Select a user from the User list. The options for the selected user appear in the right pane of the Users screen.
2. Click View Permissions (lower-right corner). The User Permissions dialog box opens (refer to Figure 98).
3. Click OK to close the dialog box.



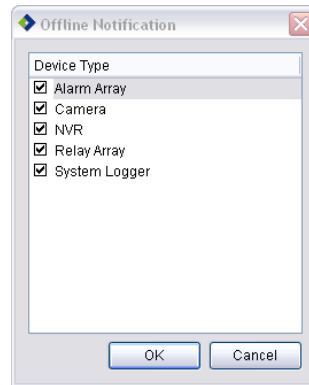
**Figure 98.** User Permissions Dialog Box

## SELECTING USER NOTIFICATION PREFERENCES

The DVR5100 Remote Client allows you to select the type of devices for which you would like the user to receive notifications.

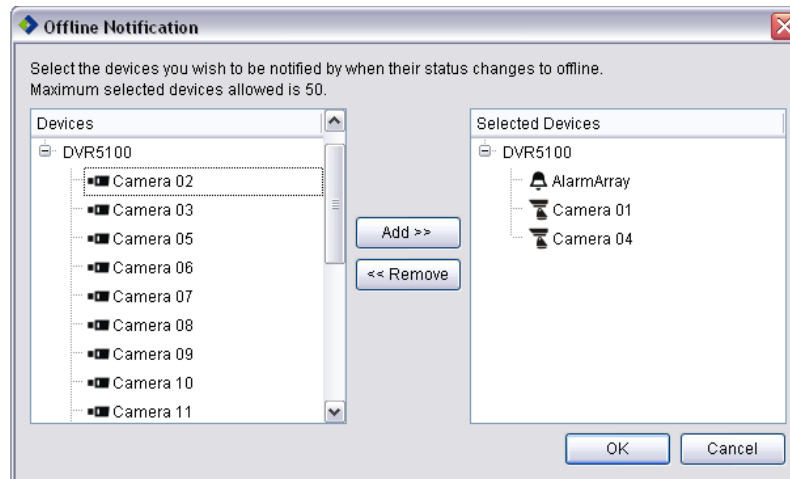
1. Select a user from the User list. The options for the selected user appear in the right pane of the Users screen.
2. In the "Alarm notification" area, perform the following steps:
  - a. Click the "Sound notification" check box to select this option. The user will hear an audible alarm notification when an alarm is triggered. By default, sound notification is disabled. Clear the check box if you do not want an audible alarm notification.
  - b. In the Snooze box, type or select the number of minutes you would like the system to wait before repeating an audible alarm notification. Choose a value between 0 (zero) and 1,440 minutes (24 hours). The default snooze time is 10 minutes.
  - c. In the "Display warning for alarms with severity" box, click the check box for each alarm severity alert (Minor, Normal, Major, or Critical). By default, none of the alarm check boxes are selected.
3. To set up "Device offline notification," perform one of the following options:
  - Select "Show warning on startup" if you want the user to receive device offline notifications when the application first starts.
  - Clear "Show warning on startup" if you want the user to only be notified of devices that go off line after startup.

4. To select the type of device for user notifications:
  - a. Click Add for the Type under “Device offline notification.” The Offline Notification dialog box opens (refer to Figure 99).
  - b. Select the device types you want to activate.



**Figure 99. Offline Notification for Device Types**

5. To select individual devices for user notification:
  - a. Click Add in the “Device offline notification” Device box,. The Offline Notification dialog box opens (refer to Figure 100).
  - b. Click a single device. Or, press and hold the Ctrl key, and then click multiple devices.
  - c. Click Add>>. Each selected device is placed in the Selected Devices column.



**Figure 100. Offline Notification for Individual Devices**

6. To confirm the entry and exit the dialog box, click OK. The dialog box closes and the selected device is listed in the Device list on the Users page. To exit the dialog box without saving the settings, click Cancel.

## DISPLAYING THE TIME ZONE

The DVR5100 Remote Client allows you to include the time zone along with date and time information in video panes, search result titles, system log results, alarm messages, and history displays. This option can be configured for the user.

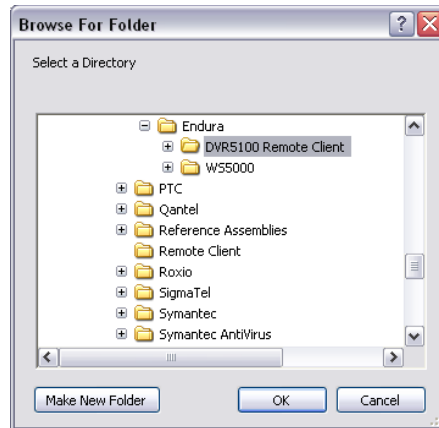
In the Modify user area under Preferences, click the “Display time zone” check box. To disable the time zone display, clear the “Display time zone” check box.

## SETTING UP EXPORT AND SNAPSHOT DEFAULTS

This setting determines the default directory and format for exported video files. Users have the option to change the file directory and format at the time that they export files using Quick or Enhanced Search.

## Setting Up Exported Files Default Directory

1. Under “Export configuration,” perform one of the following options:
  - Type the path in the Default directory box.
  - Click Browse. The Browse For Folder dialog box opens. Locate and select the directory you want to use (refer to Figure 101).

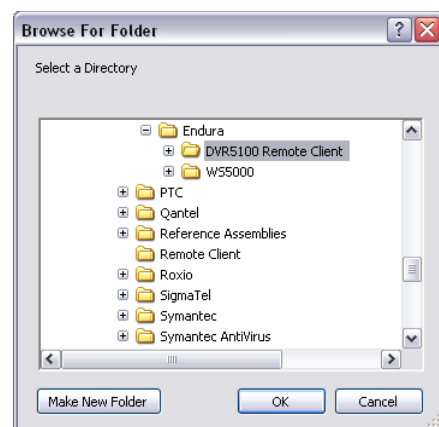


**Figure 101.** Default Export Configuration

2. To select the default export format, in the “Default format” box, select one of the following options:
  - Pelco Video Files (\*.pef, default). This format works only on the Pelco DVR5100 Player. It allows you to view overlays and authenticate exported video and audio files.
  - QuickTime® MPEG-4 files (\*.3gp). This format works on most media players. However, in QuickTime format, the overlays (camera name, time, date, motion) will not be displayed and video cannot be authenticated.

## Setting Up the User's Default Directory and Format for Exported Snapshots

1. In the “Snapshot configuration” area, do one of the following:
  - Type the path in the Default directory box.
  - Click Browse. The Browse For Folder dialog box opens. Locate and select the directory you want to use (refer to Figure 102).



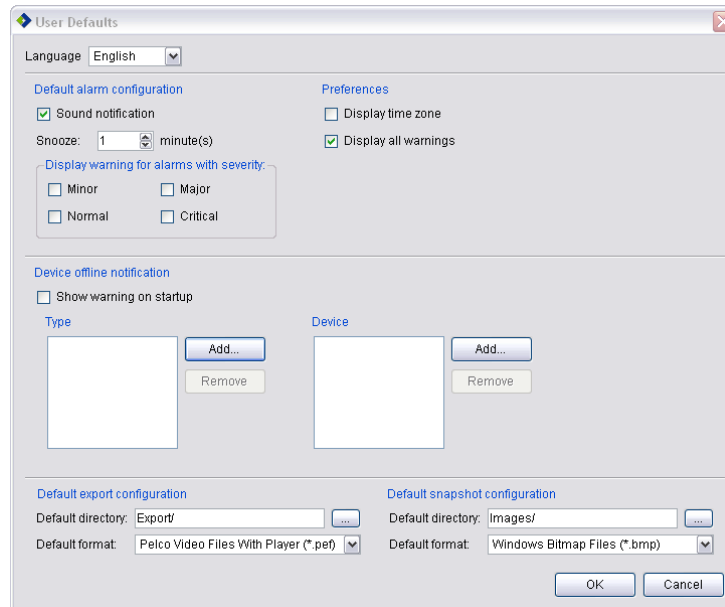
**Figure 102.** Default Snapshot Configuration

2. Select the default snapshot format from the “Default format” list: Portable Network Graphics files (\*.png, default), Windows Bitmap Files (\*.bmp), or JPEG files (\*.jpeg, \*.jpg).

## EDITING DEFAULT USER SETTINGS

Default user settings are automatically applied to any new user. The DVR5100 Remote Client allows you to edit these settings to minimize the amount of custom configuration required each time a new user is added.

1. Select a user from the User list. The options for the selected user are displayed in the contents pane.
2. Click Defaults. The User Defaults dialog box appears (refer to Figure 103).
3. Make any changes required to notification preferences and export/snapshot configurations.
4. Make any changes required for time zone display preferences. If you select this preference, time zone information will appear along with date and time information in video panes, search result titles, system log results, and alarm dialog boxes and history displays.



**Figure 103.** Editing User Defaults

## REMOVING USERS

1. Select a user from the User list. The options for the selected user are displayed in the contents pane.
2. Click the Delete button. A confirmation message appears.
3. Click Yes to confirm the deletion of the user's profile. Click No to close the screen without deleting that user's profile.



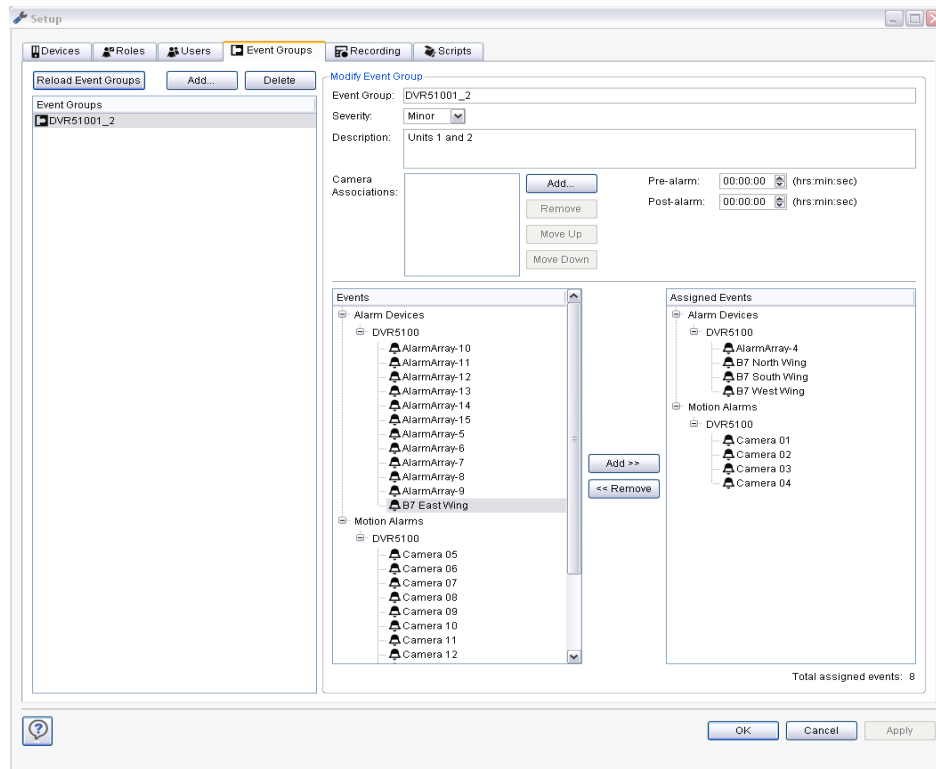
# Configuring Event Groups

Event Groups allow you to associate multiple alarm and motion events, and then run a script (or scripts) when that group of events occurs. For example, if the alarm on a door is triggered and motion is detected in the area near the door, you may want to run a script that repositions all of the cameras to that area or sends an e-mail notification about an alarm. You can create up to 32 event groups.

**NOTE:** Scripting using Event Groups is managed from the Scripts tab in the Setup screen.

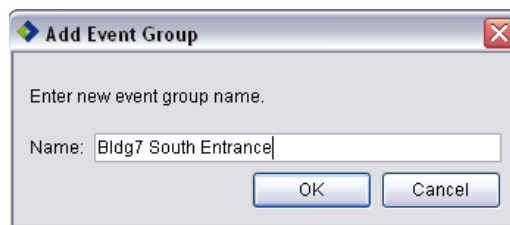
## ADDING A NEW EVENT GROUP

1. Click Event Groups . The Event Groups screen appears (refer to Figure 104).



**Figure 104.** Event Groups

2. In the Event Groups pane, click Add. The Add Event Group dialog box opens (refer to Figure 105).



**Figure 105.** Adding an Event Group


3. Enter a name for the event group.
4. Click OK. The new event group appears in the left pane. Information about the event group appears in the right pane.

5. Select a severity level for the event group (Critical, Major, Normal, and Minor.) Diagnostic messages are considered critical.  
**NOTE:** Assign the other severity levels to different events based on your business needs. For example, you might assign the Normal severity level to all door alarms or the Major severity level to all motion alarms.
6. Enter a short description of the Event Group.
7. Click the alarm or motion events you want to add to the group, and then click Add >>. The newly added alarm and motion events appear in the Assigned Events column. To remove an event, select it from the Assigned Events column, and then click << Remove.



## SETTING PRE- AND POST-ALARM VIDEO RECORDING TIMES

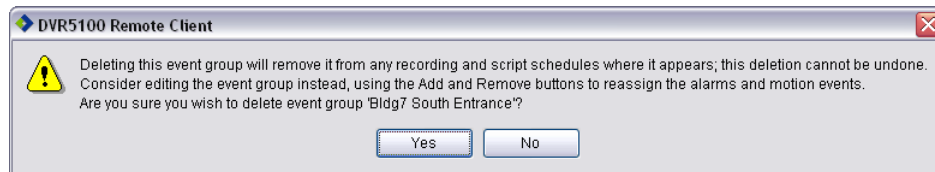
A set length of time, before and after an alarm event, may be included as part of the alarm event recording time. For example, you can specify that 5 minutes of video recorded before an alarm event and 10 minutes of video recorded after an alarm event be included as part of the alarm-event recorded video. In this case, when video of the alarm event is played back, you will see video recorded 5 minutes before the alarm occurred, video recorded during the actual alarm event, and 10 minutes of video recorded after the alarm event.

To set the length of time before and after an alarm event:

1. Click Event Groups . The Event Groups screen appears.
2. In the Event Groups pane, select an event group.
3. In the Modify Event Group pane, configure the Pre- and Post-alarm settings.
4. When you have finished editing the alarm settings, click Apply.

## DELETING AN EVENT GROUP

5. Click Setup , and then click Event Groups . The Event Groups screen appears.
1. Select an event group from the Event Groups pane. Information about that event group appears in the right pane of the Event Groups screen.
2. Click Delete. A confirmation message appears (refer to Figure 106).
3. Click Yes to confirm the deletion, or click No to close the screen without deleting that event group.



**Figure 106.** Delete an Event Group Dialog Box

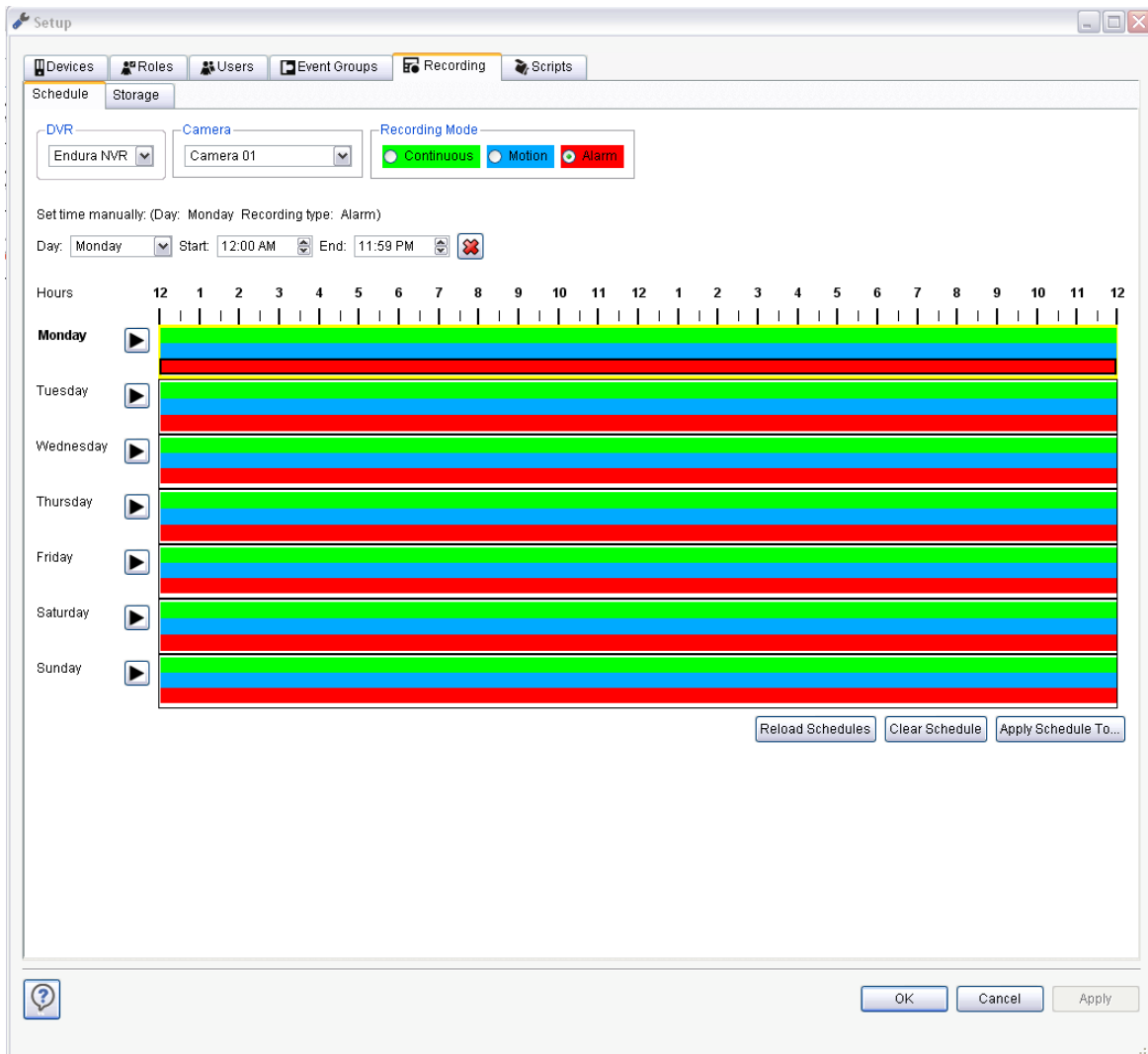
# Recording Schedule Setup

By default, the DVR5100 is configured to record video from all cameras, 24 hours a day, 7 days a week for three individual schedules: continuous, motion, and alarm. To optimize your storage capacity:

- Set up schedules to activate recording for specific cameras on certain dates and times.
- Set up a recording schedule that is activated when specific events occur. For example, you might create a recording based on alarms related to a specific camera or motion detection on certain cameras. You can create a recording based on event groups through the DVR5100 remote client.

**NOTE:** The motion schedule is not activated unless the Activate Zone check box is selected in the Cameras > Motion screen. The alarm schedule is not activated unless you have correctly configured the alarm inputs (by default, alarm input 1 is associated with camera 1, but this association can be changed on the Alarms tab).



You must configure event groups, alarms, or motion detection settings before you include them in recording schedules (refer to Figure 107).

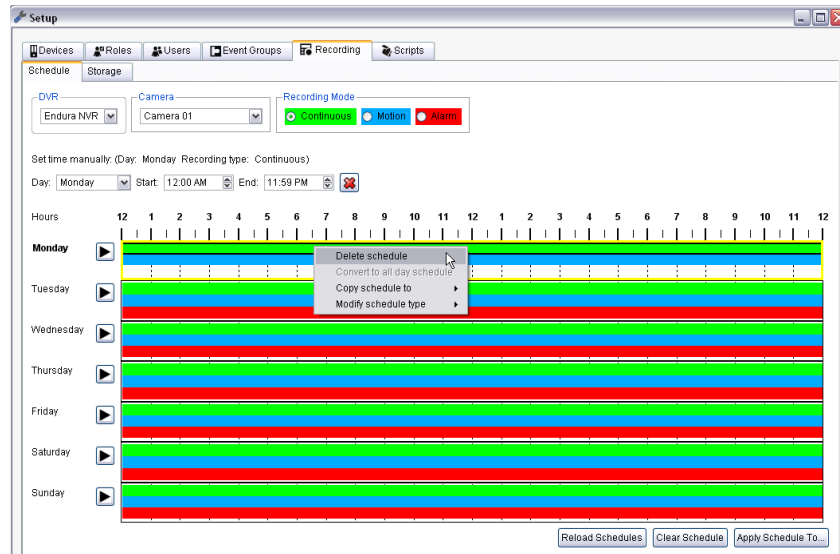


**Figure 107.** Recording Schedule Screen

## DELETING A RECORDING SCHEDULE

To clear one of the default schedules:

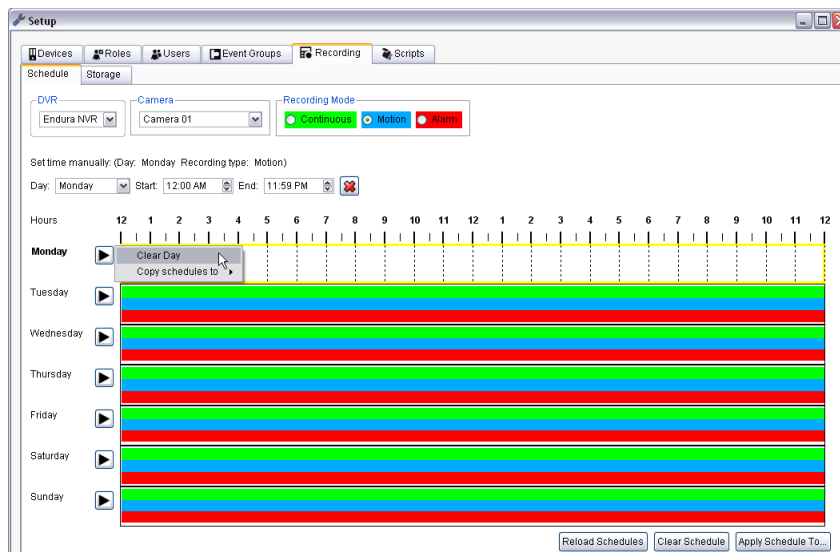
1. Click Setup , and then click Recording .
2. If not already selected, click the Schedule tab.
3. Select a DVR if more than one is connected.
4. Right-click on one of the colored recording bars for a day of the week.
5. Select "Delete schedule." Only the selected recording schedule is deleted. You can also select one of the colored recording bars, and then select Clear Schedule or press the "X" key. Only the selected recording schedule is deleted (refer to Figure 108).



**Figure 108.** Deleting a Recording Schedule

To clear all recording schedules (Continuous, Motion, and Alarm) for a day of the week:

1. Right- or left-click the weekday arrow.
2. Select Clear Day (refer to Figure 109). This clears all recording schedules for that day of the week.



**Figure 109.** Clearing a Weekday Schedule

## CREATING A RECORDING SCHEDULE

1. Select a connected camera from the Camera list.
2. Select the recording mode (Continuous, Motion, or Alarm). By default, the Continuous recording mode is selected.
3. After selecting the camera and the recording mode, you have two basic options for creating the schedule:
  - a. **Set the time manually:** Select a day from the Day list, Monday–Sunday. After selecting the day, adjust the start and end time for that day using the up/down arrows. The time line (graph) will automatically be updated depending upon the day for which the schedule has been set.
  - b. **Set the time with the mouse:** Drag the mouse on the calendar grid. For example, drag the mouse to start on Monday at 4:00 AM and end on Monday at 5:00 PM. The start and end time displayed above the grid is updated automatically depending upon the schedule drawn.

After a schedule is created, you can click on the left or right edge of the recording bar to adjust the start or end time.

You can schedule more than one block of time per day. For example, you might want to record continuously during the day (8:00 AM–5:00 PM) and only record on motion or alarm from 5 pm to 8 am the following day. To achieve this, draw three discrete schedules: 12 midnight to 7:59 AM, 8:00 AM to 5:00 PM, and 5:01 PM to 11:59 PM (refer to Figure 110).

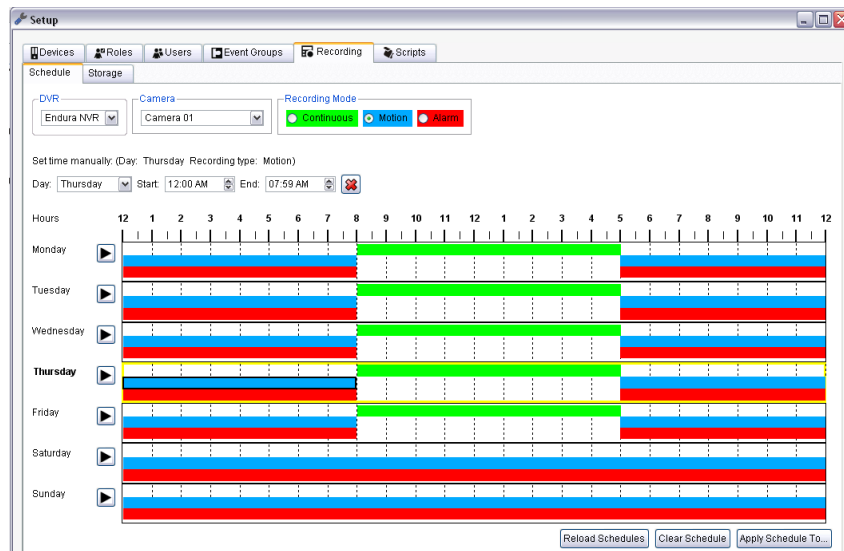


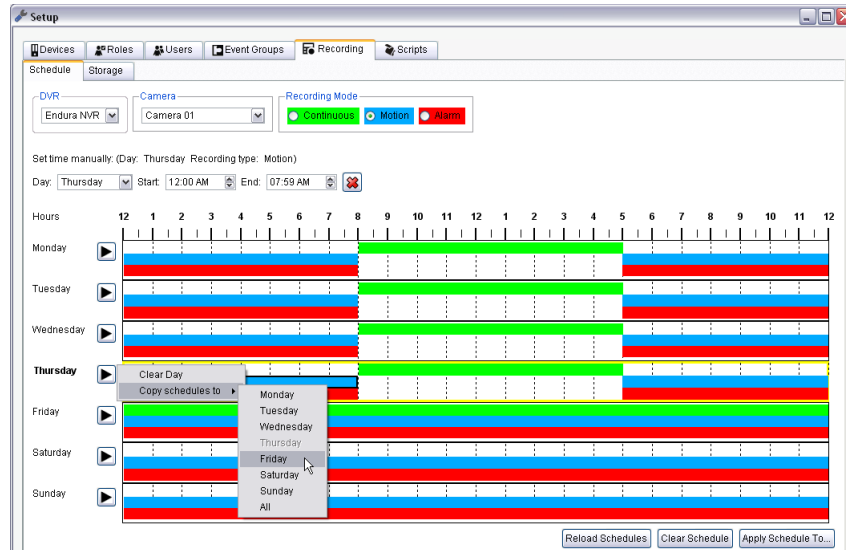
Figure 110. Recording Schedule Example

4. To repeat this process for each camera, click the “Apply Schedule To...” button. To clear a schedule, select Clear Schedule.

**NOTE:** To set up a schedule for the whole week, drag the mouse from the upper-left corner of the time line (12:00 AM on Monday) to the lower-right corner of the time line (12:00 PM on Sunday). You can also drag the mouse across multiple rows to set up multiple days.

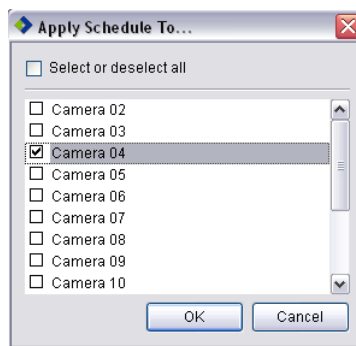
## COPYING AND REUSING A RECORDING SCHEDULE

1. Right- or left-click a weekday arrow. A menu appears (refer to Figure 111), which allows you to clear the schedule for the selected day, copy a schedule from one day to any other day of the week, or apply the schedule to all the days of the week.



**Figure 111.** Copying and Reusing Schedules

2. Click "Apply Schedule To..." to copy the whole schedule from one camera to another camera (or cameras) on the network (refer to Figure 112).

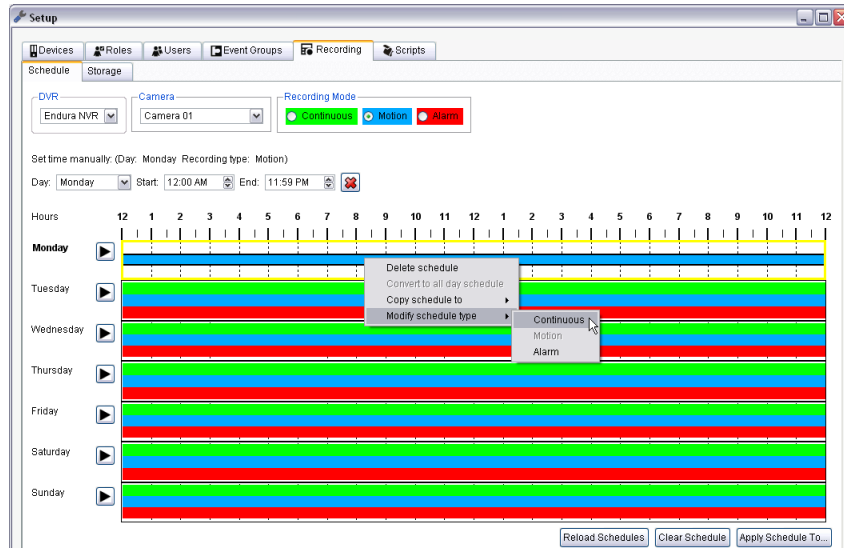


**Figure 112.** Applying and Reusing Schedules

Selecting Reload Schedules changes the schedule back to recording 24 hours a day, 7 days a week, Monday–Sunday.

## MODIFYING A RECORDING SCHEDULE

1. Right-click on one of the colored recording bars, and then select “Modify schedule type.” A menu appears (refer to Figure 113), which allows you to change the schedule type (for example, from Motion to Continuous).



**Figure 113.** Modifying a Schedule Type

2. For each weekday, modify the settings as follows. You can schedule 24 hours or a portion of the day.
  - a. Select a camera from the drop-down list, and then select one or any of the following options:
    - To record in continuous mode, select Continuous.
    - To record on motion events, select Motion.
    - To record an external alarm trigger, select Alarm.
  - b. Select the hours to be recorded (0–24) by dragging the arrow from the beginning hour to the ending hour.

**NOTE:** You can also set the recording modes manually by selecting the recording mode and day, and then setting the Start and End times using the field up and down arrows.

3. Select Apply to save your changes and continue working with settings on this page, or click OK to save changes and close the page.

# Recording Storage Setup

You can configure the recording parameters to meet specific retention, resolution, and recording rate targets through the Recording Storage screen (refer to Figure 114). Enter a desired retention target and allow the system to modify the rate and resolution to achieve that retention target, or lock specific aspects to view the expected days of storage. The DVR5100 utilizes Pelco's patented EnduraStor algorithm to capture video in real time and prune to a lower time-lapse rate after a user-defined delay period. EnduraStor allows you access to recorded real-time video for the delay period. Real-time video immediately following a security incident makes searching and exporting evidence more effective.

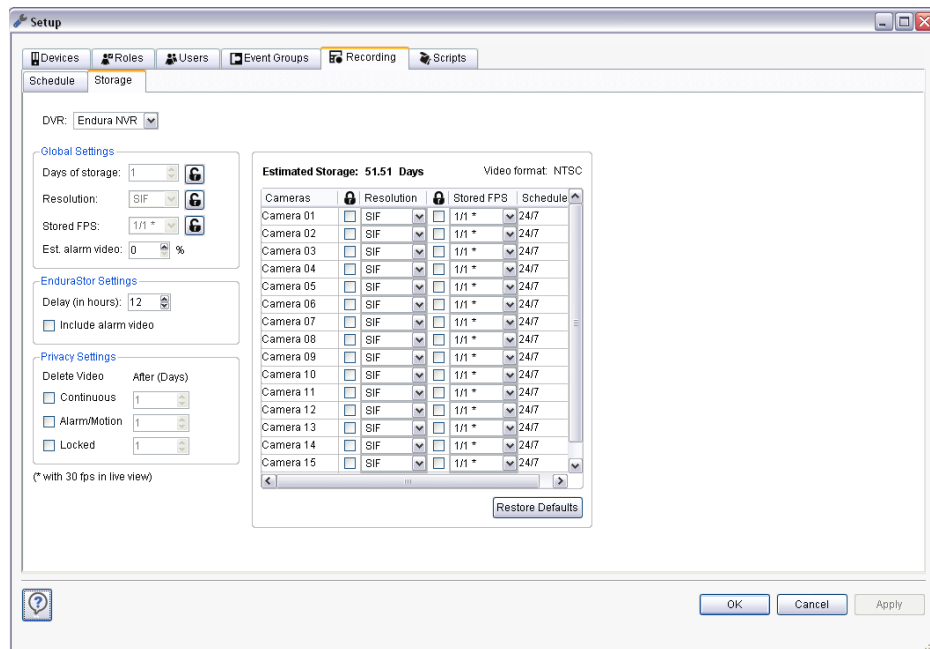


Figure 114. Recording Storage Screen

The Storage screen allows you to specify which storage settings are the most important, such as maximizing the days of storage or maintaining a high frame rate and resolution. Depending upon your requirements, you can choose the desired setting, click the lock icon, and the individual camera settings are updated automatically.

## GLOBAL SETTINGS

Global Settings allow you to specify the days of storage, resolution, and stored frame rate in frames per second (fps) for all the cameras. By default, the resolution is SIF and the stored frame rate is 1/1 (with 30 fps in live view).

To change a global setting and apply that change to all cameras:

1. Click the check box to activate the control (days of storage, resolution, or stored fps). Camera settings are updated and fixed to this global setting.
2. Choose the desired settings from the drop-down lists; the other values will update automatically.

**NOTE:** Depending on the values you select for one setting, the range of options for the other settings will be restricted. For example, if you choose 4SIF, the days of storage will be reduced and the range of options for FPS will be limited to 1/1 or 1/2.

3. Click the check box again for "Days of storage," Resolution, or Stored FPS to unlock that setting.

**NOTE:** Changes to global settings will not affect those cameras already locked to a different resolution or frame rate.



## CAMERA SETTINGS

For a high priority camera, you may want to increase the resolution and frame rate to values higher than the global settings. To save space, you may want to reduce the resolution and frame rate for low priority cameras. After making a camera-specific adjustment, select the check box to lock that value in place. This prevents that camera's configuration from being reset the next time you make a change to a global setting. The Estimated Storage value is automatically updated after changes are made and locked.

The camera settings grid displays the resolutions and frame rates for all enabled cameras. It also displays the recording schedules for all enabled cameras (whether each camera is set to record 24/7 or on a schedule).

### ESTIMATED ALARM VIDEO

The "Estimated alarm video" setting improves the estimated days of storage. Alarm-related video is retained longer than other types of recording. Space is allowed for this extra retention time when you include an estimated percentage of recordings that are expected to be triggered by alarms. This results in more realistic estimates. By default, the percentage is set to 0 (zero). Increasing this estimate reduces the estimated days of storage.

**NOTE:** This setting is an estimator, and will not delete video if the actual amount of alarm-related recording exceeds the specified percentage.

### ESTIMATED STORAGE

The number of estimated storage days appears above the cameras list. This number updates every time you make changes to global, camera, or privacy settings. The Estimated Storage box turns red if changes to one or more settings prevents the system from meeting the minimum days of storage requirement specified in the Global Settings.

## ENDURASTOR SETTINGS

The EnduraStor delay allows you to specify how long you need to retain full motion video, with no video pruned or deleted. The default value is 12 hours.

Pruning means that the DVR removes the P-frames in the video, while retaining all of the I-frames. When there are no more P-frames to prune from either continuous or motion video, the DVR deletes I-frames, beginning with the oldest continuous video, moving to the oldest motion video, and then moving to the oldest alarm-related video. Locked video is retained until the privacy setting limit for locked video is reached.

## PRIVACY SETTINGS

Privacy settings allow you to specify when your video recordings must be deleted. In some countries, privacy directives require that video recording systems delete video after a certain number of days. This screen allows you to configure the system to meet those requirements. You may want to delete all of the recording types (continuous, motion, and alarm) after the same number of days. Or, if privacy settings are not required, you may choose to delete continuous video, while retaining alarm and motion video.

To activate your deletion preferences:

1. Select the check box beside the recording type to be deleted.
2. Select the maximum number of days you want to retain video from the After (Days) list.

**NOTE:** Make sure that the "Delete Video after" settings are the same as, or higher than, the desired days of storage. If these settings conflict (for example, the "Days of storage" is set to 14, but deletion is set to 7 days), then the deletion command takes precedence and the specified days of storage will not be achieved.

3. Select Restore Defaults to restore all the storage settings to the default factory-configured settings.
4. After setting up the schedule, click Apply or OK to apply the changes and save the Storage settings to the DVR. Click Cancel to exit without saving the changes.

# Creating Scripts

A DVR5100 script is like a macro, but provides much more power and flexibility. Scripts may be used to control almost all system functions and can be combined in almost any order. Refer to Table E for a description of the supported scripts.

## ADDING A SCRIPT

To create a new script:

1. Click Setup , and then select Scripts . The Scripts screen appears (refer to Figure 115).

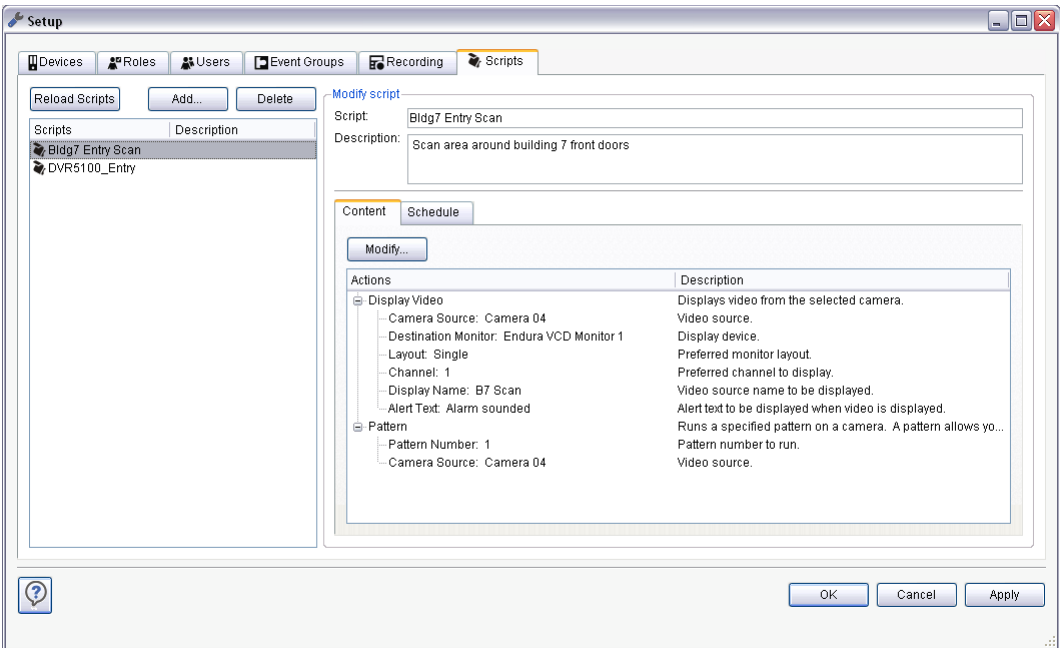


Figure 115. Adding a Script

2. Click Add. The Add Script dialog box opens (refer to Figure 116).

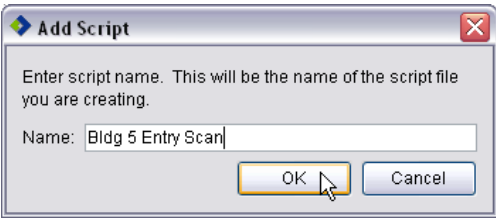


Figure 116. Adding a Script Name

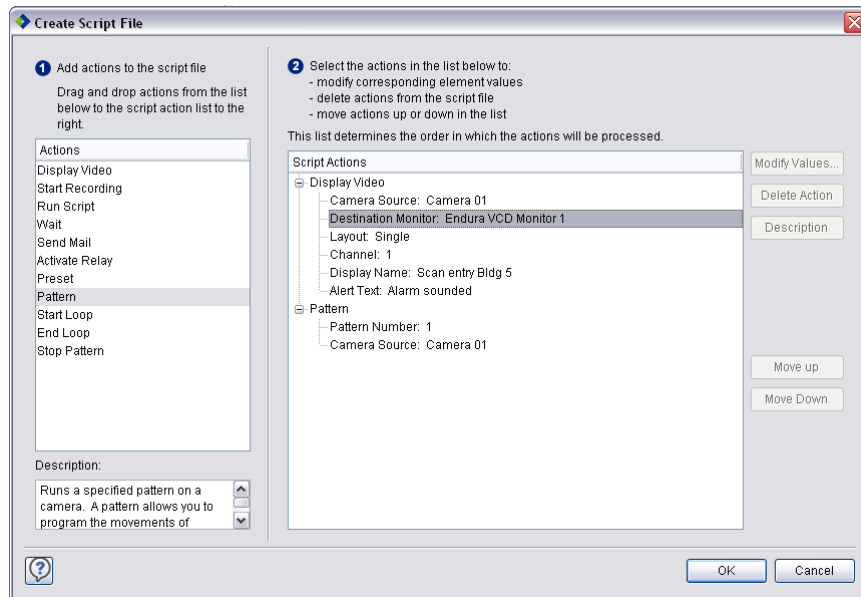
3. In the Name text box, enter a new script name. The name must contain fewer than 100 characters and include only letters, numbers, or spaces (no special characters).
4. To confirm the entry and exit the dialog box, click OK. To exit the dialog box without saving the entry, click Cancel.
5. In the Description text box, enter a brief description of the script. For example, "Repositions lobby cameras, or notifies guards by e-mail when an alarm is triggered."

## MODIFYING SCRIPT CONTENT

After you have named the new script, select the script actions and arrange them in the order you would like them to execute.

1. Click a script in the Scripts pane.
2. Click the Content tab under “Modify script,” and then click Modify. The Create Script File dialog box opens (refer to Figure 117).

The left pane in the Create Script File dialog box lists all possible actions. The right pane displays a description of the currently selected action and the Script Actions pane, which lists the actions you have selected and all applicable settings.



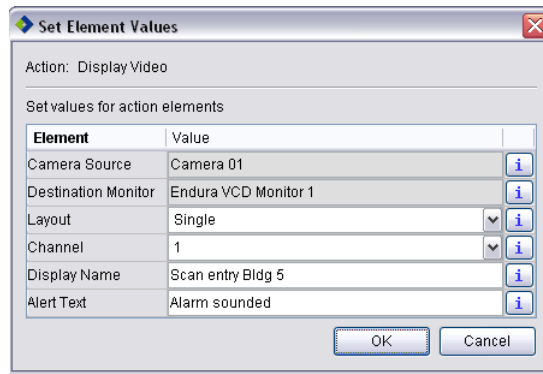
**Figure 117.** Create Script File Dialog Box

3. Add actions to the script file by selecting an action from the Actions pane, and then dragging it into the right pane. Or, double-click the action, which automatically adds it to the right pane.
4. Add settings for each action. Some actions do not have any settings associated with them. For example, “Restart entire system” has only one possible meaning and does not need to have a device listed for the command to be meaningful. However, an action such as “Display video” needs settings, such as camera source and destination monitor, to execute the command.

**NOTE:** Actions may be used more than once with different parameters. For example, there may be three lobby cameras that you want to reposition when an alarm is triggered. For this purpose, select the “Preset” action three times.

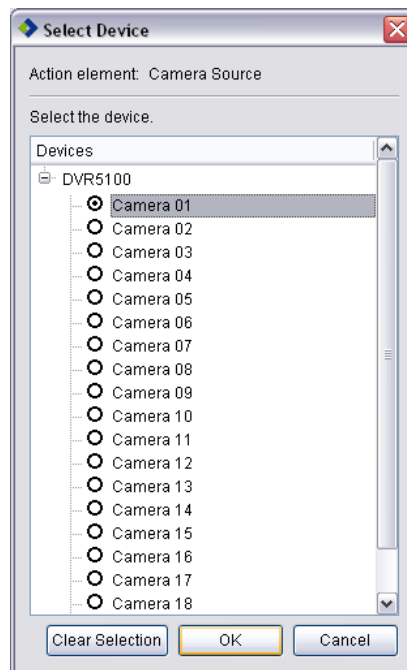
A red X indicates that an action setting is missing.

5. To modify the settings:
  - a. In the Script Actions pane, double-click the action you want to edit, or click the action, and then click Modify Values. The Set Element Values screen appears (refer to Figure 118).



**Figure 118.** Set Element Values Dialog Box

- b. Set the value for the selected action, enter text, use the up and down control, or select an item from the Select Device dialog box. Refer to Figure 119 for an example of a tree selection dialog.




**Figure 119.** Select Device Dialog Box

6. Click OK to confirm the settings and exit the dialog box, or click Cancel to exit the dialog box without saving the settings.
7. To reorder the actions as needed, click the action you want to move, and then click Move Up or Move Down until the action is in the desired position.
8. To delete an action from the list, select the action, and then click Delete Action.

## MODIFYING A SCRIPT SCHEDULE

You can activate a script manually by using the Execute Scripts screen, or you can program the script to activate automatically on certain dates or in response to alarms or motion.

To select the dates, times, and events when a script should execute:

1. In the Modify script area, click the Schedule tab.
2. Click the right arrow  beside "Assign dates, times, and events." The Shortcut menu is displayed.
3. Click Add. The Assign Dates and Times dialog box opens (refer to Figure 120 on page 105).

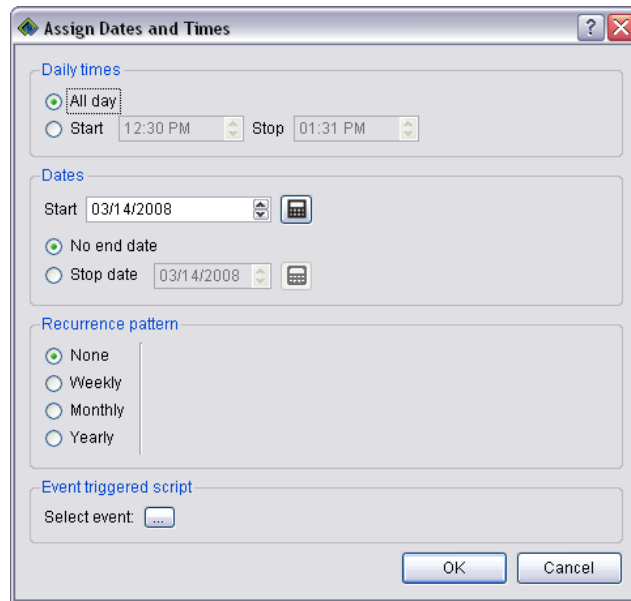



Figure 120. Assigning Dates and Times Dialog Box

4. Set the script start and end times or select "All day".
5. Set the start date, using one of three options:
  - Click Calendar , and then select start date for your script.
  - Type the date: Click in a date field, delete the current date, and then type the start date you want to use for your script.
  - Use the date up-down control: Click the month field, then use the up and down control to scroll through the numbered months (1–12) until you reach the month you want to use for the start of your script. Repeat the same process for setting the date and the year.
6. Select "No end date," or specify an end date using one of the three options listed in step 5.
7. Select the recurrence pattern. Different settings appear depending on the option button you select:
  - **None:** No recurrence pattern; no settings required.
  - **Weekly:** The days of the week appear on the right. Click the check boxes of the days you would like the script to recur.
  - **Monthly:** Set which day (1–31) of the month and how many months apart (1, 2, 3, 4, 5, or 6) you would like the script to recur.
  - **Yearly:** Set the month and day of the year you would like the script to recur.
8. Select an event to trigger the script.
  - Click the ellipses button beside "Select event." The Select Event screen appears.
  - Select an event (motion or alarm) or event group.
  - Click OK, Clear Selection, or Cancel.
9. You may assign more than one set of dates, times, and events to a particular script. To add additional dates/times/events, repeat the preceding steps.

## DELETING A SCRIPT

1. Click a script in the Scripts pane.
2. Click Delete. A confirmation screen appears .
3. Click Yes to confirm the deletion of the script, or click No to close the screen without deleting the script.

# Working with the Endura Player

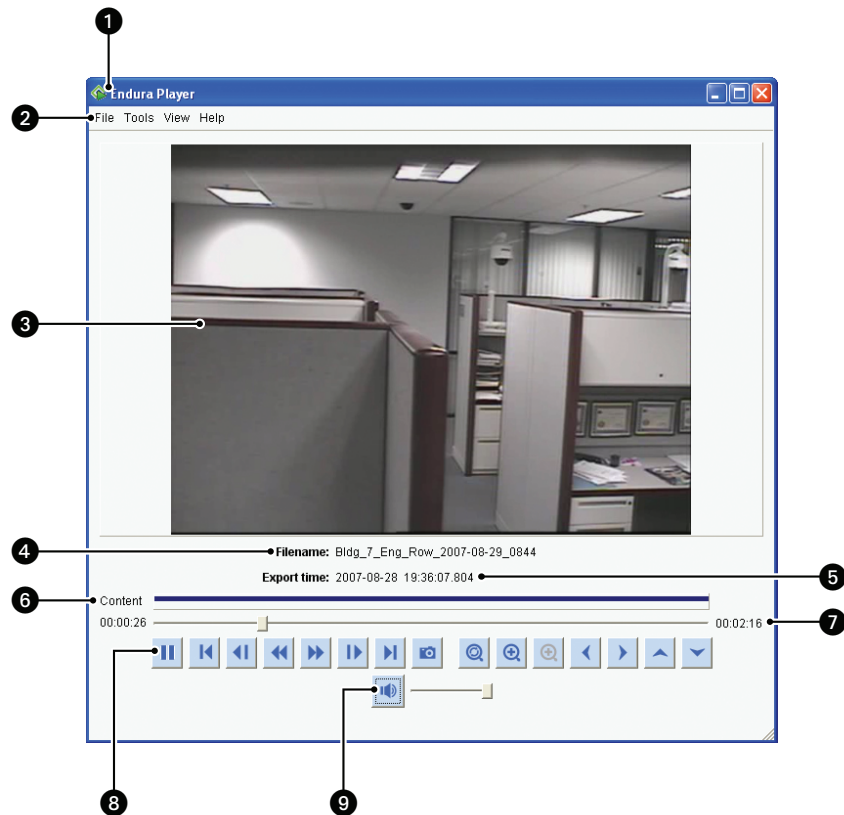
This section describes how to use the Endura Player to view video.

## ACCESSING EXPORTED FILES

Through your Windows Explorer, go to the folder where your exported files are stored. The default location is in the Endura Application/Export directory. Users with the proper permissions may edit the default location.

## PLAYING BACK EXPORTED FILES

Double-click the exported file you want to play back. The file opens in its own player window (refer to Figure 121).



**Figure 121.** Exported File Player

- 1 **Title Bar:** Displays the Endura Player title.
- 2 **Menu Bar:** Provides access to drop-down menus.
  - **File:** Open, Open Recent, Properties, Authenticate, Exit
  - **Tools:** Setup
  - **View:** Extended View
  - **Help:** Endura Player Help, About
- 3 **View Pane:** Displays video exported from the DVR5100 Remote Client software.
- 4 **Camera Name**
- 5 **Date and Time**

**6 Control Bar:** This bar represents the duration and content of the file to be played back. Where video is present, the content line appears blue. Where video is missing from parts of the file, the blue line is empty. Where audio is present, the content line appears gray with a blue line above it. Where audio is missing from parts of the file, the gray line is empty.

**7 Total Video Clip Duration (in hours, minutes, and seconds).**

**8 Video Playback Controls:**

- Play/Pause
- Frame-by-Frame Reverse
- Slow Reverse
- Fast Reverse
- Fast-Forward
- Slow Forward
- Frame-by-Frame Forward
- Export Snapshot

**9 Volume Control**



## OPENING A FILE

To open an exported video/audio file, go to File > Open, and then browse to select the file you want to play. Or, go to File > Open Recent, and then select a recently opened file from the submenu (refer to Figure 122).

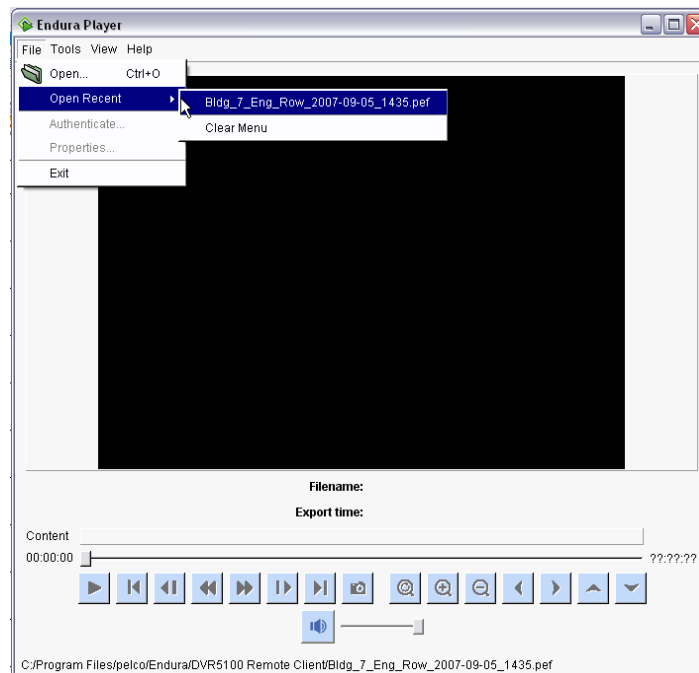











Figure 122. Opening a Recent File

## ON-SCREEN PLAYBACK CONTROLS

- To play back video, click Play . While video is playing, the Play button changes to a Pause button . Click this button again to pause playback.
- To play the video in reverse frame-by-frame, click .
- To play in fast-reverse, click .
- To fast-forward, click .
- To move forward frame-by-frame, click .
- To play the video forward at one-quarter speed, click .
- To play the video backward at one-quarter speed, click .
- To export a snapshot of the current image, click Snapshot . The Snapshot icon appears momentarily in the upper-left corner to confirm that the snapshot was saved.

## AUTHENTICATING A FILE

To verify that an exported file is unaltered, run the Endura Player's authentication utility:

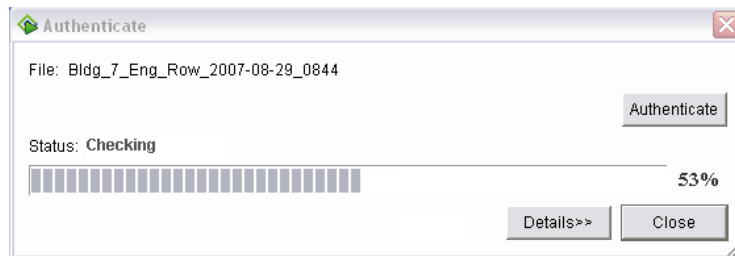
1. Open the file you want to authenticate.

2. Go to File > Authenticate. A dialog box appears (refer to Figure 123).



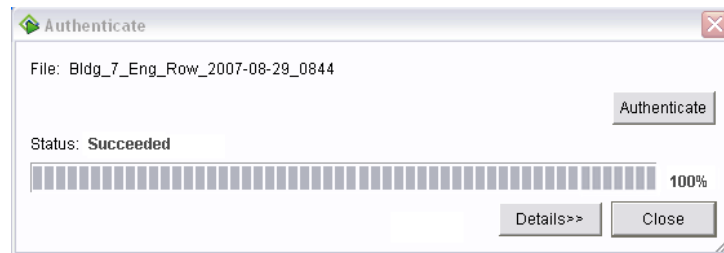
**Figure 123.** Authenticate Dialog Box

3. Click the Authentication button. A status bar appears, and the count of failed frames (if any) appears on the right above the status bar (refer to Figure 124). Click Stop at any time to interrupt the authentication process.



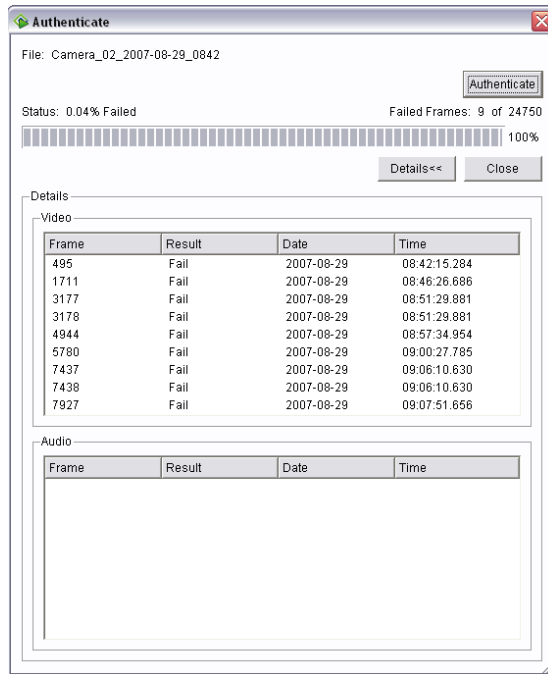
**Figure 124.** Authentication in Progress

4. When authentication is complete, one of three final results messages appears above the colored status bar: Succeeded, Failed, or percentage of frames failed (refer to Figure 125 and Figure 126).



**Figure 125.** Authentication Succeeded

- Click Details to view information about frames that failed authentication. This window is blank if no frames failed.



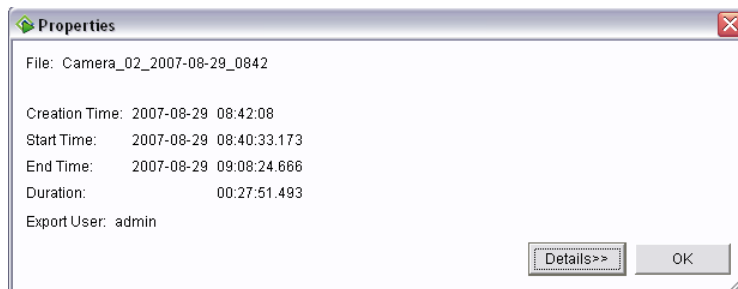
**Figure 126.** Authentication Failure Details

- Click Close to close the Authentication window.

## EXPORTED FILE PROPERTIES

To view information about the currently active video or audio file, do the following:

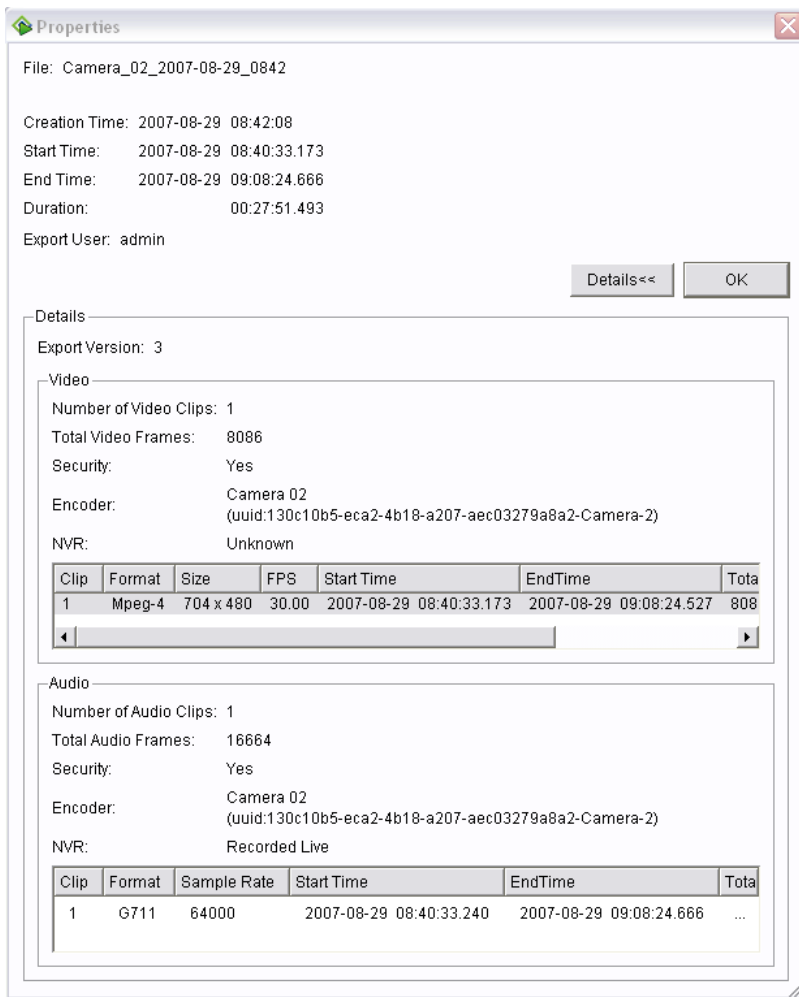
- Go to File > Properties. A new window appears that provides details about the currently playing video and audio file (refer to Figure 127).



**Figure 127.** File Properties

The Properties window can remain open while you view the clip. If you open a new video file, the Properties window updates to reflect the information in the new file.

2. To view more detailed file properties, click the Details >> button. The Properties dialog box expands (refer to Figure 128).



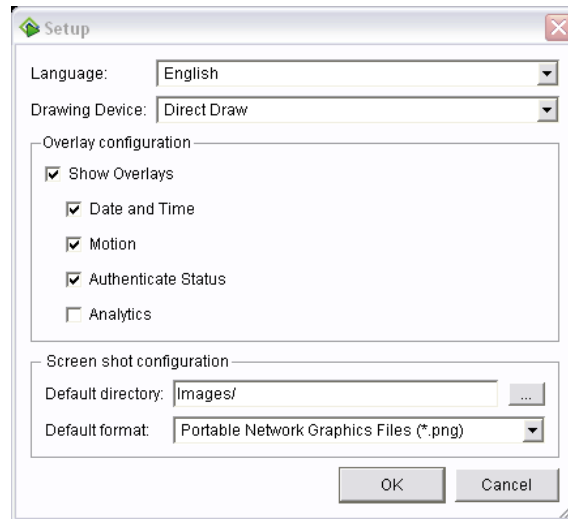
**Figure 128. Properties Details**

The window now displays additional information about the active file. It also provides details about each video and audio clip in the file. A gray bar in this window highlights the currently playing clip.

3. Click the Details << button again to hide this information.
4. Click OK to close the Properties window.

## MODIFYING PLAYER SETTINGS

1. Go to Tools > Setup. A dialog box appears.
2. Select Language from the list; English is the default language. Other languages are available if a language pack is installed.
3. Select Drawing Device from the list. The drawing method affects the way the video image appears on the screen: Direct Draw (default) or Windows Graphical Display (GDI).

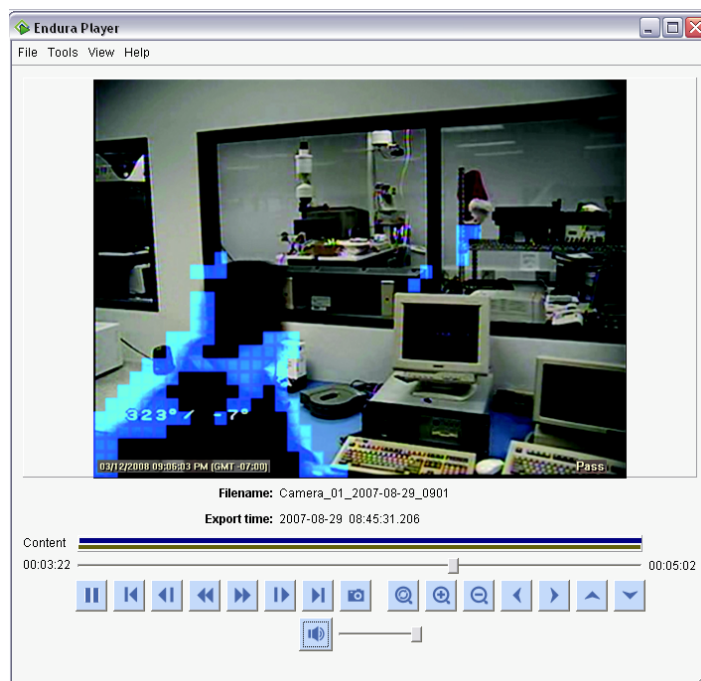


**Figure 129.** Options for Player Setup

4. Select the “Overlay configuration” options:
  - Click the Show Overlays check box to display Date/Time, Motion, and Authentication overlays. By default, overlays are not displayed.
  - Click the Date and Time check box to display the date and time in the video window during playback. (The date and time are also displayed below the video pane, near the progress bar.)
  - Click the Motion check box to display the motion grid during playback.
  - Click the Authenticate Status check box to display the authentication status of the current frame. This overlay appears in the upper-right corner of the video pane.

5. Configure snapshot settings:

- Set up the default directory for snapshot files. Type the path in the Default Directory box, or click the ellipses button to browse to the directory you want to use.
- Select the default snapshot format from the list: Portable Network Graphics files (\*.png, default), Windows Bitmap Files (\*.bmp), or JPEG files (\*.jpeg, \*.jpg).



**Figure 130.** Player with Motion Overlays

## USING EXTENDED VIEW

The Endura Player window may sometimes be too small for the video clip that you are reviewing. You can change the size of the window by dragging the lower-right corner to a different size. You can also use the Extended View command to enlarge the Endura Player window to fit the entire screen.

To switch to Extended View, select View > Extended View. You can also right-click the video, and then select Extended View from the Shortcut menu.

To exit the Extended View, press the Escape key. You can also right-click the video and select Exit Extended View from the Shortcut menu.

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## PRODUCT WARRANTY AND RETURN INFORMATION

### WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

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- Three years on Spectra® IV products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on DX Series digital video recorders, DVR5100 Series digital video recorders, Digital Sentry® Series hardware products, DVX Series digital video recorders, NVR300 Series network video recorders, and Endura® Series distributed network-based video products.
- Three years on Camclosure® and Pelco-branded fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Three years on EH1500 Series enclosures.
- Three years on PMCL200/300/400 Series LCD monitors.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
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- Two years on Esprit Ti and TI2500 Series thermal imaging products.
- Two years on Esprit and WW5700 Series window wiper (excluding wiper blades).
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- Two years on Intelli-M® eIDC controllers.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners, or preset lenses used in continuous motion applications (preset scan, tour, and auto scan modes).

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2. Date of shipment, P.O. number, sales order number, or Pelco invoice number
3. Details of the defect or problem

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11-11-08

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### REVISION HISTORY

Manual #	Date	Comments
C1697M	8/06	Original version.
C1697M-A	7/08	Modified Quick Search, Enhanced Search, Recording Schedule, and Storage.
C1697M-B	11/08	Updated information to reflect the latest feature set.

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